WEBVTT

NOTE duration:"01:26:59.8400000"

NOTE language:en-us

NOTE Confidence: 0.8006452

 $00:00:00.000 \dashrightarrow 00:00:03.573$ Join in so I'll start on a screen share.

NOTE Confidence: 0.85339105

00:00:08.050 - > 00:00:10.500 Alright, so it is my pleasure to

NOTE Confidence: 0.85339105

 $00:00:10.500 \dashrightarrow 00:00:12.745$ help moderate this smilow shares

NOTE Confidence: 0.85339105

 $00{:}00{:}12.745 \dashrightarrow 00{:}00{:}14.989$ special Greenwich Addition to night.

NOTE Confidence: 0.85339105

00:00:14.990 --> 00:00:17.430 Understanding colorectal cancer were doing

NOTE Confidence: 0.85339105

 $00{:}00{:}17{.}430 \dashrightarrow 00{:}00{:}19{.}870$ this during colorectal Cancer Awareness

NOTE Confidence: 0.85339105

00:00:19.937 --> 00:00:22.223 Month and we have really wonderful

NOTE Confidence: 0.85339105

 $00{:}00{:}22.223 \dashrightarrow 00{:}00{:}24.110$ representation from the whole team.

NOTE Confidence: 0.85339105

 $00{:}00{:}24.110 \dashrightarrow 00{:}00{:}26.708$ My name is Doctor Pamela Kunze.

NOTE Confidence: 0.85339105

00:00:26.710 --> 00:00:29.620 I'm an associate professor of medicine NOTE Confidence: 0.85339105

 $00{:}00{:}29.620 \dashrightarrow 00{:}00{:}32.381$ and medical on cology and I practice

NOTE Confidence: 0.85339105

00:00:32.381 -> 00:00:34.957 at the main campus in New Haven.

NOTE Confidence: 0.85339105

 $00{:}00{:}34.960 \dashrightarrow 00{:}00{:}38.536$ I am the new director for the Center.

NOTE Confidence: 0.85339105

 $00:00:38.540 \rightarrow 00:00:40.725$ Sure of gastrointestinal cancers and

00:00:40.725 --> 00:00:42.910 arrived mid pandemic last summer.

NOTE Confidence: 0.85339105

00:00:42.910 --> 00:00:45.367 I I am joined by Doctor Shabeer

NOTE Confidence: 0.85339105

00:00:45.367 --> 00:00:47.992 your who's a professor of medicine

NOTE Confidence: 0.85339105

 $00:00:47.992 \rightarrow 00:00:50.962$ and gastro enterology he is the

NOTE Confidence: 0.85339105

 $00{:}00{:}50{.}962 \dashrightarrow 00{:}00{:}53{.}331$ director of screening and prevention

NOTE Confidence: 0.85339105

 $00:00:53.331 \longrightarrow 00:00:56.013$ and like leader of our newly

NOTE Confidence: 0.85339105

 $00:00:56.020 \rightarrow 00:00:58.020$ formed Colorectal Cancer program,

NOTE Confidence: 0.85339105

 $00:00:58.020 \rightarrow 00:01:00.520$ he'll be speaking about colorectal

NOTE Confidence: 0.85339105

 $00{:}01{:}00{.}520 \dashrightarrow 00{:}01{:}02{.}760$ cancer screening and prevention.

NOTE Confidence: 0.85339105

00:01:02.760 --> 00:01:04.200 Also Doctor Peter Mcwhorter,

NOTE Confidence: 0.85339105

00:01:04.200 --> 00:01:05.640 who's a colorectal surgeon

NOTE Confidence: 0.85339105

 $00{:}01{:}05{.}640 \dashrightarrow 00{:}01{:}06{.}900$ at Greenwich Hospital.

NOTE Confidence: 0.85339105

 $00:01:06.900 \rightarrow 00:01:09.174$ He'll be speaking about surgical treatment

NOTE Confidence: 0.85339105

00:01:09.174 --> 00:01:12.157 of colon and rectal cancer Doctor Sung Lee,

NOTE Confidence: 0.85339105

 $00:01:12.160 \longrightarrow 00:01:14.035$ an assistant professor of clinical

00:01:14.035 --> 00:01:15.535 medicine and medical oncology,

NOTE Confidence: 0.85339105

 $00{:}01{:}15.540 \dashrightarrow 00{:}01{:}17.275$ and the interim medical director

NOTE Confidence: 0.85339105

00:01:17.275 --> 00:01:19.680 of Smilow Care Center in Greenwich.

NOTE Confidence: 0.85339105

 $00{:}01{:}19.680 \dashrightarrow 00{:}01{:}21.920$ And he'll be talking about the treatment

NOTE Confidence: 0.85339105

 $00{:}01{:}21{.}920 \dashrightarrow 00{:}01{:}23{.}713$ before and after surgery called

NOTE Confidence: 0.85339105

00:01:23.713 --> 00:01:25.648 neoadjuvant in adam
ant treatment and

NOTE Confidence: 0.85339105

 $00{:}01{:}25{.}648 \dashrightarrow 00{:}01{:}28{.}108$ Doctor Barry Boyd and Assistant Professor

NOTE Confidence: 0.85339105

00:01:28.108 --> 00:01:30.580 of Clinical medicine and medical oncology.

NOTE Confidence: 0.85339105

 $00{:}01{:}30{.}580 \dashrightarrow 00{:}01{:}32{.}460$ Also practicing at the Smilow

NOTE Confidence: 0.85339105

 $00:01:32.460 \longrightarrow 00:01:33.964$ Care Center in Greenwich,

NOTE Confidence: 0.85339105

 $00{:}01{:}33{.}970 \dashrightarrow 00{:}01{:}36{.}825$ and he'll be talking about

NOTE Confidence: 0.85339105

 $00{:}01{:}36.825 \dashrightarrow 00{:}01{:}39.109$ treatment for metastatic disease.

NOTE Confidence: 0.85339105

 $00:01:39.110 \longrightarrow 00:01:41.168$ So just with a few brief

NOTE Confidence: 0.85339105

00:01:41.168 --> 00:01:43.260 comments to get us started,

NOTE Confidence: 0.85339105

 $00:01:43.260 \rightarrow 00:01:45.462$ colorectal cancer is the third leading

NOTE Confidence: 0.85339105

00:01:45.462 --> 00:01:48.160 cause of cancer in the United States,

- NOTE Confidence: 0.85339105
- $00:01:48.160 \longrightarrow 00:01:50.040$ among both men and women.

 $00{:}01{:}50{.}040 \dashrightarrow 00{:}01{:}52{.}679$ And you can see the stars here,

NOTE Confidence: 0.85339105

 $00:01:52.680 \rightarrow 00:01:55.648$ and it is also the third leading cause

NOTE Confidence: 0.85339105

 $00{:}01{:}55{.}648 \dashrightarrow 00{:}01{:}58{.}706$ of cancer deaths in both men and women.

NOTE Confidence: 0.85339105

 $00{:}01{:}58{.}710 \dashrightarrow 00{:}02{:}01{.}300$ But the good news is that it's

NOTE Confidence: 0.85339105

 $00:02:01.300 \dashrightarrow 00:02:03.618$ preventable and we'll talk about that.

NOTE Confidence: 0.85339105

 $00{:}02{:}03.620 \dashrightarrow 00{:}02{:}07.067$ Colon cancer has been in the news quite a

NOTE Confidence: 0.85339105

 $00:02:07.067 \dashrightarrow 00:02:10.773$ bit over the course of the last 12 months.

NOTE Confidence: 0.85339105

 $00:02:10.780 \dashrightarrow 00:02:13.090$ And there was the untimely death

NOTE Confidence: 0.85339105

 $00:02:13.090 \longrightarrow 00:02:15.070$ of the Black Panther star.

NOTE Confidence: 0.85339105

00:02:15.070 - 00:02:18.647 Chadwick Boseman at the age of 43.

NOTE Confidence: 0.85339105

 $00{:}02{:}18.650 \dashrightarrow 00{:}02{:}20.876$ And then also in the fall we

NOTE Confidence: 0.85339105

 $00{:}02{:}20.876 \dashrightarrow 00{:}02{:}22.730$ saw in the headlines.

NOTE Confidence: 0.85339105

00:02:22.730 --> 00:02:24.254 Colon cancer screening should

NOTE Confidence: 0.85339105

 $00:02:24.254 \rightarrow 00:02:26.810$ start earlier at the age of 45.

 $00{:}02{:}26.810 \dashrightarrow 00{:}02{:}29.394$ This was on the basis of a new

NOTE Confidence: 0.85339105

 $00{:}02{:}29{.}394 \dashrightarrow 00{:}02{:}31{.}298$ recommendation from the United States

NOTE Confidence: 0.85339105

 $00{:}02{:}31.298 \dashrightarrow 00{:}02{:}33.668$ Preventive Services Task Force that the NOTE Confidence: 0.85339105

 $00:02:33.668 \rightarrow 00:02:36.456$ age should get lowered for average risk.

NOTE Confidence: 0.85339105

 $00:02:36.460 \longrightarrow 00:02:38.260$ Individuals and doctor will go

NOTE Confidence: 0.85339105

 $00{:}02{:}38{.}260 \dashrightarrow 00{:}02{:}40{.}540$ into that a little bit later.

NOTE Confidence: 0.85339105

00:02:40.540 --> 00:02:43.879 So with that I am going to stop Sharon,

NOTE Confidence: 0.85339105

 $00{:}02{:}43.880 \dashrightarrow 00{:}02{:}47.219$ I'm going to pass the baton to doctor your.

NOTE Confidence: 0.80723417

 $00{:}02{:}56{.}520 \dashrightarrow 00{:}02{:}59{.}448$ Thank you very much like our kids.

NOTE Confidence: 0.80723417

 $00:02:59.450 \rightarrow 00:03:02.666$ It's a real pleasure to be here with

NOTE Confidence: 0.80723417

 $00:03:02.666 \dashrightarrow 00:03:04.898$ this wonderful panel of experts,

NOTE Confidence: 0.80723417

 $00:03:04.900 \rightarrow 00:03:07.510$ so I'll try to give you my two cents

NOTE Confidence: 0.80723417

 $00{:}03{:}07{.}510$ --> $00{:}03{:}10{.}746$ on on the very summarized way about

NOTE Confidence: 0.80723417

00:03:10.746 --> 00:03:13.241 preventive measures for correct cancer

NOTE Confidence: 0.80723417

 $00:03:13.241 \dashrightarrow 00:03:15.786$ and screening approaches for that.

NOTE Confidence: 0.84746766

 $00:03:20.320 \rightarrow 00:03:23.434$ So taking a global view which is always

 $00:03:23.434 \rightarrow 00:03:27.046$ helpful if we look at this map of the world,

NOTE Confidence: 0.84746766

 $00:03:27.050 \longrightarrow 00:03:29.426$ we see these incidence of colorectal

NOTE Confidence: 0.84746766

 $00:03:29.426 \longrightarrow 00:03:32.410$ cancer in 2018 and we read it goes

NOTE Confidence: 0.84746766

 $00:03:32.410 \longrightarrow 00:03:34.396$ from the very light areas like

NOTE Confidence: 0.84746766

 $00:03:34.474 \longrightarrow 00:03:36.778$ blue areas to the darkest areas,

NOTE Confidence: 0.84746766

 $00{:}03{:}36{.}780 \dashrightarrow 00{:}03{:}39{.}083$ which are the ones that have the

NOTE Confidence: 0.84746766

 $00:03:39.083 \rightarrow 00:03:41.260$ highest incidence of colorectal cancer.

NOTE Confidence: 0.84746766

 $00:03:41.260 \rightarrow 00:03:44.086$ And as you can see there are huge differences

NOTE Confidence: 0.84746766

 $00:03:44.086 \dashrightarrow 00:03:46.497$ in the incidence that's expressed.

NOTE Confidence: 0.84746766

00:03:46.500 - 00:03:49.188 It's a common way to express it.

NOTE Confidence: 0.84746766

 $00:03:49.190 \longrightarrow 00:03:51.350$ Per 100,000 individuals and it's

NOTE Confidence: 0.84746766

 $00{:}03{:}51{.}350 \dashrightarrow 00{:}03{:}54{.}576$ from less than 6.2 to more than

NOTE Confidence: 0.84746766

 $00:03:54.576 \longrightarrow 00:03:56.548$ 27 per 100,000 individuals,

NOTE Confidence: 0.84746766

 $00{:}03{:}56{.}550 \dashrightarrow 00{:}03{:}59{.}136$ that's a huge range difference between

NOTE Confidence: 0.84746766

 $00{:}03{:}59{.}136 \dashrightarrow 00{:}04{:}01{.}437$ some areas with lower incidents

00:04:01.437 --> 00:04:03.910 like like Southeast Asia, Sub,

NOTE Confidence: 0.84746766

00:04:03.910 --> 00:04:06.210 Saharian, Africa or other areas,

NOTE Confidence: 0.84746766

 $00:04:06.210 \longrightarrow 00:04:08.510$ particularly in the more of

NOTE Confidence: 0.84746766

 $00:04:08.510 \longrightarrow 00:04:09.890$ the richer worlds,

NOTE Confidence: 0.84746766

00:04:09.890 --> 00:04:11.730 Western and Eastern Europe,

NOTE Confidence: 0.84746766

 $00:04:11.730 \dashrightarrow 00:04:14.394$ North America, Australia and New Zealand.

NOTE Confidence: 0.84746766

 $00:04:14.394 \rightarrow 00:04:18.516$ So the richer we get usually the higher the

NOTE Confidence: 0.84746766

00:04:18.516 --> 00:04:21.841 incidence of these countries and many others,

NOTE Confidence: 0.84746766

 $00{:}04{:}21.850 \dashrightarrow 00{:}04{:}22.275$ unfortunately.

NOTE Confidence: 0.84746766

 $00:04:22.275 \dashrightarrow 00:04:26.100$ And that must have something to do with the

NOTE Confidence: 0.84746766

 $00{:}04{:}26.179 \dashrightarrow 00{:}04{:}29.259$ kind of things that go with being Richard.

NOTE Confidence: 0.84746766

00:04:29.260 --> 00:04:31.378 It's important also to to point

NOTE Confidence: 0.84746766

 $00{:}04{:}31{.}378 \dashrightarrow 00{:}04{:}34{.}189$ out that there is good data showing

NOTE Confidence: 0.84746766

 $00{:}04{:}34{.}189 \dashrightarrow 00{:}04{:}36{.}389$ that people migrating from lower

NOTE Confidence: 0.84746766

 $00:04:36.389 \longrightarrow 00:04:38.860$ risk areas to higher risk areas.

NOTE Confidence: 0.84746766

 $00:04:38.860 \longrightarrow 00:04:41.128$ Pretty soon they get to the

- NOTE Confidence: 0.84746766
- $00:04:41.128 \rightarrow 00:04:43.260$ similar levels of the locals,

 $00{:}04{:}43.260 \dashrightarrow 00{:}04{:}45.380$ meaning that that changing environment

NOTE Confidence: 0.84746766

 $00:04:45.380 \rightarrow 00:04:47.921$ really plays a very important role

NOTE Confidence: 0.84746766

 $00:04:47.921 \dashrightarrow 00:04:50.057$ in terms of colorectal cancer risk.

NOTE Confidence: 0.84746766

 $00{:}04{:}50{.}060 \dashrightarrow 00{:}04{:}52{.}568$ We've known also some factors for.

NOTE Confidence: 0.84746766

 $00{:}04{:}52{.}570$ --> $00{:}04{:}55{.}746$ For a while and some of them quite confirm.

NOTE Confidence: 0.84746766

00:04:55.750 --> 00:04:57.730 For instance, heavy alcohol intake.

NOTE Confidence: 0.84746766

 $00:04:57.730 \longrightarrow 00:05:00.509$ That's the result in an increased risk.

NOTE Confidence: 0.84746766

 $00:05:00.510 \rightarrow 00:05:03.289$ This is expressed here as relative risk,

NOTE Confidence: 0.84746766

00:05:03.290 --> 00:05:05.666 so one meaning no increased risk.

NOTE Confidence: 0.84746766

 $00{:}05{:}05{.}670 \dashrightarrow 00{:}05{:}07{.}258$ Everything that's above one

NOTE Confidence: 0.84746766

 $00{:}05{:}07{.}258 \dashrightarrow 00{:}05{:}08{.}846$ would be increased risk.

NOTE Confidence: 0.84746766

 $00{:}05{:}08.850 \dashrightarrow 00{:}05{:}11.650$ Everything that's below one is is lower

NOTE Confidence: 0.84746766

 $00{:}05{:}11.650 \dashrightarrow 00{:}05{:}14.239$ rates there for preventive effect.

NOTE Confidence: 0.84746766

00:05:14.240 --> 00:05:17.336 And again, as we went one further up,

- $00:05:17.340 \longrightarrow 00:05:18.498$ sorry about that.
- NOTE Confidence: 0.84746766
- $00{:}05{:}18{.}498 \dashrightarrow 00{:}05{:}20{.}814$ And as we can see here,
- NOTE Confidence: 0.84746766
- $00{:}05{:}20.820 \dashrightarrow 00{:}05{:}22.750$ alcohol is associated with that.
- NOTE Confidence: 0.84746766
- 00:05:22.750 --> 00:05:23.272 Also,
- NOTE Confidence: 0.84746766
- $00{:}05{:}23.272$ --> $00{:}05{:}26.926$ obesity is associated with an increased risk.
- NOTE Confidence: 0.84746766
- 00:05:26.930 --> 00:05:29.856 Also an increased risk for red meat
- NOTE Confidence: 0.84746766
- $00:05:29.856 \rightarrow 00:05:32.225$ and consumption of processed meat
- NOTE Confidence: 0.84746766
- $00:05:32.225 \rightarrow 00:05:34.815$ and very important Association with
- NOTE Confidence: 0.84746766
- $00{:}05{:}34.815 \dashrightarrow 00{:}05{:}37.753$ smoking and even former smokers do
- NOTE Confidence: 0.84746766
- $00{:}05{:}37.753 \dashrightarrow 00{:}05{:}40.784$ still have carry a high risk daughter.
- NOTE Confidence: 0.84746766
- $00:05:40.790 \longrightarrow 00:05:44.582$ Risk does go down so there are some
- NOTE Confidence: 0.84746766
- $00{:}05{:}44.582 \dashrightarrow 00{:}05{:}47.382$ environmental habits and and aspects
- NOTE Confidence: 0.84746766
- $00{:}05{:}47{.}382 \dashrightarrow 00{:}05{:}50{.}022$ that really can modify our risk.
- NOTE Confidence: 0.84746766
- 00:05:50.030 --> 00:05:51.874 Others like physical activity
- NOTE Confidence: 0.84746766
- $00:05:51.874 \rightarrow 00:05:53.257$ or dairy products,
- NOTE Confidence: 0.84746766
- $00:05:53.260 \rightarrow 00:05:54.697$ particularly physical activity.

- NOTE Confidence: 0.84746766
- 00:05:54.697 00:05:56.613 That's been very consistently

 $00:05:56.613 \longrightarrow 00:05:58.480$ associated with a lower.

NOTE Confidence: 0.84746766

 $00{:}05{:}58{.}480 \dashrightarrow 00{:}06{:}01{.}250$ At risk so so a lot to be said about

NOTE Confidence: 0.84746766

 $00:06:01.332 \longrightarrow 00:06:03.364$ environmental factors that probably

NOTE Confidence: 0.84746766

 $00:06:03.364 \longrightarrow 00:06:06.412$ still don't have a good sense.

NOTE Confidence: 0.84746766

 $00{:}06{:}06{.}420 \dashrightarrow 00{:}06{:}09{.}220$ And what other types of factors are

NOTE Confidence: 0.84746766

00:06:09.220 --> 00:06:11.980 playing a big role in this case?

NOTE Confidence: 0.84746766

 $00:06:11.980 \longrightarrow 00:06:14.367$ We've also known for a long time

NOTE Confidence: 0.84746766

 $00{:}06{:}14.367 \dashrightarrow 00{:}06{:}15.976$ that there's familial clustering

NOTE Confidence: 0.84746766

 $00:06:15.976 \longrightarrow 00:06:17.539$ in corrective cancers,

NOTE Confidence: 0.84746766

 $00{:}06{:}17.540 \dashrightarrow 00{:}06{:}20.655$ meaning that some families tend to have

NOTE Confidence: 0.84746766

 $00{:}06{:}20.655 \dashrightarrow 00{:}06{:}23.319$ different relatives with colorectal cancer.

NOTE Confidence: 0.84746766

 $00{:}06{:}23.320 \dashrightarrow 00{:}06{:}24.298$ Not wonder more.

NOTE Confidence: 0.84746766

 $00{:}06{:}24.298 \dashrightarrow 00{:}06{:}26.254$ And as we can see here,

NOTE Confidence: 0.84746766

 $00:06:26.260 \rightarrow 00:06:27.156$ for instance,

- $00:06:27.156 \longrightarrow 00:06:27.604$ having.
- NOTE Confidence: 0.84746766
- $00:06:27.604 \longrightarrow 00:06:29.844$ Just one more first degree
- NOTE Confidence: 0.84746766
- $00:06:29.844 \rightarrow 00:06:32.260$ relative that would mean siblings,
- NOTE Confidence: 0.84746766
- $00:06:32.260 \longrightarrow 00:06:32.708$ parents,
- NOTE Confidence: 0.84746766
- $00:06:32.708 \longrightarrow 00:06:33.156$ sons,
- NOTE Confidence: 0.84746766
- $00{:}06{:}33.156 \dashrightarrow 00{:}06{:}34.948$ daughters that would increase
- NOTE Confidence: 0.84746766
- $00:06:34.948 \longrightarrow 00:06:37.110$ the risk quite a bit.
- NOTE Confidence: 0.84746766
- $00:06:37.110 \longrightarrow 00:06:39.200 2.2$ very significant having one
- NOTE Confidence: 0.84746766
- $00{:}06{:}39{.}200 \dashrightarrow 00{:}06{:}41{.}835$ or more first of your relatives
- NOTE Confidence: 0.84746766
- $00:06:41.835 \longrightarrow 00:06:44.607$ diagnosed before the age of 50.
- NOTE Confidence: 0.84746766
- $00{:}06{:}44.610 \dashrightarrow 00{:}06{:}47.697$ Stealing it increases the risk even higher,
- NOTE Confidence: 0.84746766
- $00:06:47.700 \longrightarrow 00:06:49.740$ and having two more first
- NOTE Confidence: 0.84746766
- 00:06:49.740 --> 00:06:51.780 degree relatives tax even a
- NOTE Confidence: 0.8360674
- 00:06:51.857 --> 00:06:53.741 higher increase in the
- NOTE Confidence: 0.8360674
- 00:06:53.741 --> 00:06:55.625 risk of colorectal cancer.
- NOTE Confidence: 0.8360674
- $00:06:55.630 \longrightarrow 00:06:57.900$ That on the other hand.

- NOTE Confidence: 0.8360674
- $00:06:57.900 \rightarrow 00:07:01.204$ Even having a one more second degree

00:07:01.204 $\operatorname{-->}$ 00:07:04.773 relative or having a a one or more

NOTE Confidence: 0.8360674

 $00:07:04.773 \rightarrow 00:07:07.390$ first degree relatives with what we

NOTE Confidence: 0.8360674

 $00:07:07.390 \rightarrow 00:07:11.098$ call an advanced polyp like Canada, no ma'am.

NOTE Confidence: 0.8360674

00:07:11.098 --> 00:07:13.368 Not a cancerous polyp yet,

NOTE Confidence: 0.8360674

 $00:07:13.370 \longrightarrow 00:07:17.010$ but a what we often call premalignant polyp.

NOTE Confidence: 0.8360674

 $00{:}07{:}17.010 \dashrightarrow 00{:}07{:}20.040$ That also increases the risk and

NOTE Confidence: 0.8360674

 $00:07:20.040 \longrightarrow 00:07:22.060$ that's why recommendations for

NOTE Confidence: 0.8360674

 $00:07:22.144 \rightarrow 00:07:24.982$ individuals who have for family members

NOTE Confidence: 0.8360674

 $00:07:24.982 \dashrightarrow 00:07:27.920$ who have a relative who has had.

NOTE Confidence: 0.8360674

 $00{:}07{:}27{.}920 \dashrightarrow 00{:}07{:}29{.}376$ Call it like that.

NOTE Confidence: 0.8360674

00:07:29.376 --> 00:07:31.196 Get also enhanced screening too,

NOTE Confidence: 0.8360674

 $00{:}07{:}31{.}200 \dashrightarrow 00{:}07{:}33{.}734$ so that's those are all important factors.

NOTE Confidence: 0.8360674

00:07:33.740 --> 00:07:34.416 And again,

NOTE Confidence: 0.8360674

 $00{:}07{:}34.416 \dashrightarrow 00{:}07{:}36.782$ what they really speak for is that

 $00{:}07{:}36.782 \dashrightarrow 00{:}07{:}39.049$ there is that classroom means that

NOTE Confidence: 0.8360674

 $00{:}07{:}39{.}049 \dashrightarrow 00{:}07{:}41{.}350$ there are some factors that seem

NOTE Confidence: 0.8360674

00:07:41.350 - 00:07:43.570 to be shared among family members,

NOTE Confidence: 0.8360674

 $00:07:43.570 \longrightarrow 00:07:46.118$ and that's why you see those clusters.

NOTE Confidence: 0.8360674

 $00:07:46.120 \longrightarrow 00:07:48.300$ And those factors really are

NOTE Confidence: 0.8360674

 $00:07:48.300 \longrightarrow 00:07:50.044$ the result of important.

NOTE Confidence: 0.8360674

00:07:50.050 --> 00:07:51.666 At once like lifestyle,

NOTE Confidence: 0.8360674

 $00:07:51.666 \rightarrow 00:07:53.686$ we talked about environment Dyett,

NOTE Confidence: 0.8360674

 $00{:}07{:}53.690 \dashrightarrow 00{:}07{:}56.108$ Andy genetic background and really did.

NOTE Confidence: 0.8360674

 $00:07:56.110 \longrightarrow 00:07:58.672$ Some of these have a higher weight

NOTE Confidence: 0.8360674

 $00{:}07{:}58.672 \dashrightarrow 00{:}08{:}01.556$ in some cases and others and genetic

NOTE Confidence: 0.8360674

 $00{:}08{:}01{.}556 \dashrightarrow 00{:}08{:}04{.}600$ defect will have a higher weighed in

NOTE Confidence: 0.8360674

 $00:08:04.600 \dashrightarrow 00:08:07.018$ what we call the cancer syndromes.

NOTE Confidence: 0.8360674

 $00:08:07.020 \longrightarrow 00:08:09.282$ The ones that were there is

NOTE Confidence: 0.8360674

 $00:08:09.282 \longrightarrow 00:08:11.460$ a mutation in the family.

NOTE Confidence: 0.8360674

 $00:08:11.460 \rightarrow 00:08:13.056$ There's a significantly higher

- NOTE Confidence: 0.8360674
- $00:08:13.056 \longrightarrow 00:08:15.450$ risk of cancer and that's the

 $00{:}08{:}15.522 \dashrightarrow 00{:}08{:}17.517$ example that I'm showing here.

NOTE Confidence: 0.8360674

 $00:08:17.520 \longrightarrow 00:08:20.058$ Those are if this is the.

NOTE Confidence: 0.8360674

 $00:08:20.060 \dashrightarrow 00:08:22.517$ Tired of all colorectal cancers and we

NOTE Confidence: 0.8360674

 $00:08:22.517 \longrightarrow 00:08:25.801$ look at if they have any mutations of

NOTE Confidence: 0.8360674

 $00:08:25.801 \rightarrow 00:08:28.750$ those that cause inherited cancer syndromes.

NOTE Confidence: 0.8360674

 $00:08:28.750 \longrightarrow 00:08:30.820$ If we take anyone with

NOTE Confidence: 0.8360674

 $00:08:30.820 \longrightarrow 00:08:32.890$ colorectal cancer older than 50,

NOTE Confidence: 0.8360674

 $00{:}08{:}32.890 \dashrightarrow 00{:}08{:}34.960$ was it about 5% five?

NOTE Confidence: 0.8360674

 $00{:}08{:}34{.}960 \dashrightarrow 00{:}08{:}37{.}468$ 8% will have an inherited predisposition

NOTE Confidence: 0.8360674

 $00:08:37.468 \rightarrow 00:08:39.520 \text{ most common while lynching room.}$

NOTE Confidence: 0.8360674

 $00{:}08{:}39{.}520 \dashrightarrow 00{:}08{:}42{.}243$ But if we take younger people in

NOTE Confidence: 0.8360674

 $00{:}08{:}42.243 \dashrightarrow 00{:}08{:}45.690$ this case right here in the middle of

NOTE Confidence: 0.8360674

00:08:45.690 - 00:08:48.210 all individuals are younger than 50,

NOTE Confidence: 0.8360674

 $00:08:48.210 \longrightarrow 00:08:50.390$ you would see that the.

 $00:08:50.390 \longrightarrow 00:08:53.186$ Percentage of those having a inherited

NOTE Confidence: 0.8360674

 $00:08:53.186 \longrightarrow 00:08:56.310$ cancer syndrome would go up close to 20%,

NOTE Confidence: 0.8360674

 $00{:}08{:}56{.}310 \dashrightarrow 00{:}08{:}59{.}894$ and if we only look at individuals who

NOTE Confidence: 0.8360674

 $00:08:59.894 \rightarrow 00:09:03.076$ were diagnosed at an age younger than 35,

NOTE Confidence: 0.8360674

 $00{:}09{:}03{.}080 \dashrightarrow 00{:}09{:}06{.}248$ that will go up to about a third

NOTE Confidence: 0.8360674

 $00{:}09{:}06{.}248 \dashrightarrow 00{:}09{:}08{.}160$ of all the cases.

NOTE Confidence: 0.8360674

 $00:09:08.160 \longrightarrow 00:09:10.644$ So that's why family history and

NOTE Confidence: 0.8360674

 $00:09:10.644 \rightarrow 00:09:13.230$ determining genetic defects is so important,

NOTE Confidence: 0.8360674

 $00{:}09{:}13.230 \dashrightarrow 00{:}09{:}15.350$ particularly with the younger individuals,

NOTE Confidence: 0.8360674

 $00:09:15.350 \dashrightarrow 00:09:18.017$ because they do have the highest risk

NOTE Confidence: 0.8360674

 $00{:}09{:}18.017 \dashrightarrow 00{:}09{:}20.848$ of being due to inherited defects.

NOTE Confidence: 0.8817059

 $00:09:24.890 \longrightarrow 00:09:27.474$ And but the good news of the story

NOTE Confidence: 0.8817059

 $00{:}09{:}27{.}474 \dashrightarrow 00{:}09{:}30{.}173$ that I wanted to share with you

NOTE Confidence: 0.8817059

 $00:09:30.173 \rightarrow 00:09:32.620$ is what I'm showing right here.

NOTE Confidence: 0.8817059

 $00:09:32.620 \dashrightarrow 00:09:35.189$ This is the graph that starts in

NOTE Confidence: 0.8817059

 $00:09:35.189 \longrightarrow 00:09:39.500$ the 1930s up to 2017. And that's.

00:09:39.500 --> 00:09:41.530 Incidents again per 100,000 individuals NOTE Confidence: 0.8817059 $00{:}09{:}41.530 \dashrightarrow 00{:}09{:}45.055$ and as we can see here both for males NOTE Confidence: 0.8817059 $00:09:45.055 \rightarrow 00:09:47.648$ and females there since in mid 1980s NOTE Confidence: 0.8817059 $00:09:47.648 \rightarrow 00:09:49.952$ a very steady and significant decline NOTE Confidence: 0.8817059 $00:09:49.952 \rightarrow 00:09:52.658$ in in both the incidence of colorectal NOTE Confidence: 0.8817059 $00:09:52.658 \rightarrow 00:09:54.980$ cancer and mortality of colorectal cancer. NOTE Confidence: 0.8817059 $00:09:54.980 \longrightarrow 00:09:56.910$ That's certainly a very that's NOTE Confidence: 0.8817059 $00:09:56.910 \rightarrow 00:09:58.454$ been very encouraging news. NOTE Confidence: 0.8817059 $00:09:58.460 \longrightarrow 00:10:00.072$ The trend has come. NOTE Confidence: 0.8817059 $00:10:00.072 \longrightarrow 00:10:02.490$ Seen it going down and that's NOTE Confidence: 0.8817059 $00:10:02.575 \rightarrow 00:10:04.880$ the very positive news here. NOTE Confidence: 0.8817059 $00:10:04.880 \longrightarrow 00:10:09.360$ The fact, in fact, this has this. NOTE Confidence: 0.8817059 00:10:09.360 --> 00:10:10.650 Decrease from 2006, NOTE Confidence: 0.8817059 $00:10:10.650 \longrightarrow 00:10:13.660$ 2000 to 2015 has been an average NOTE Confidence: 0.8817059 $00:10:13.751 \rightarrow 00:10:15.053$ about 3.7% annually, NOTE Confidence: 0.8817059 16

 $00:10:15.053 \rightarrow 00:10:17.891$ so that means every year there's

NOTE Confidence: 0.8817059

 $00{:}10{:}17{.}891 \dashrightarrow 00{:}10{:}20{.}670$ been that close to 4% decrease in

NOTE Confidence: 0.8817059

 $00{:}10{:}20.670 \dashrightarrow 00{:}10{:}22.845$ this incident of colorectal cancer.

NOTE Confidence: 0.8817059

00:10:22.850 --> 00:10:25.295 Quite remarkable numbers and that

NOTE Confidence: 0.8817059

 $00{:}10{:}25.295 \dashrightarrow 00{:}10{:}28.565$ decrease in incidents that we see here

NOTE Confidence: 0.8817059

 $00:10:28.565 \rightarrow 00:10:31.541$ in this line going down from year 2000,

NOTE Confidence: 0.8817059

 $00:10:31.550 \longrightarrow 00:10:33.776$ no longer 2018 has really been

NOTE Confidence: 0.8817059

 $00:10:33.776 \longrightarrow 00:10:35.907$ matched by this steady increase

NOTE Confidence: 0.8817059

00:10:35.907 --> 00:10:37.638 in screening procedures,

NOTE Confidence: 0.8817059

 $00:10:37.640 \longrightarrow 00:10:39.900$ and here we are showing.

NOTE Confidence: 0.8817059

 $00:10:39.900 \longrightarrow 00:10:42.075$ Call a colonoscopies the more

NOTE Confidence: 0.8817059

00:10:42.075 --> 00:10:43.815 colonoscopies we've been doing,

NOTE Confidence: 0.8817059

 $00{:}10{:}43.820 \dashrightarrow 00{:}10{:}46.436$ the lower incidence of colorectal cancer,

NOTE Confidence: 0.8817059

 $00:10:46.440 \rightarrow 00:10:50.800$ so it it must have something to do with that.

NOTE Confidence: 0.8817059

 $00:10:50.800 \rightarrow 00:10:52.051$ What we doing.

NOTE Confidence: 0.8817059

 $00:10:52.051 \rightarrow 00:10:54.136$ Removing polyps even though there

- NOTE Confidence: 0.8817059
- $00:10:54.136 \rightarrow 00:10:56.838$ are some other trends showing that

 $00:10:56.838 \rightarrow 00:10:59.520$ other factors may have had literal,

NOTE Confidence: 0.8817059

 $00:10:59.520 \longrightarrow 00:11:01.700$ but the most important role,

NOTE Confidence: 0.8817059

 $00{:}11{:}01{.}700 \dashrightarrow 00{:}11{:}03{.}432$ definitely is that generalization

NOTE Confidence: 0.8817059

 $00{:}11{:}03{.}432 \dashrightarrow 00{:}11{:}05{.}597$ of screening of colorectal cancer

NOTE Confidence: 0.8817059

 $00{:}11{:}05{.}597 \dashrightarrow 00{:}11{:}07{.}815$ screening that's made the incidence

NOTE Confidence: 0.8817059

 $00:11:07.815 \rightarrow 00:11:09.606$ significantly lower, so now.

NOTE Confidence: 0.8817059

00:11:09.606 --> 00:11:12.384 Doctor Kincel was referring to the

NOTE Confidence: 0.8817059

 $00{:}11{:}12{.}384 \dashrightarrow 00{:}11{:}14{.}660$ United United States Preventive

NOTE Confidence: 0.8817059

00:11:14.660 --> 00:11:16.547 Services Task Force,

NOTE Confidence: 0.8817059

 $00:11:16.550 \longrightarrow 00:11:18.990$ which is this independent Organism.

NOTE Confidence: 0.8817059

00:11:18.990 $\operatorname{-->}$ 00:11:22.000 The basically looks at the at the

NOTE Confidence: 0.8817059

 $00:11:22.000 \rightarrow 00:11:23.925$ medical literature very carefully

NOTE Confidence: 0.8817059

 $00{:}11{:}23{.}925 \dashrightarrow 00{:}11{:}26{.}715$ and ends up is suing recommendations

NOTE Confidence: 0.8817059

 $00:11:26.715 \longrightarrow 00:11:28.947$ for screening and prevention

 $00:11:29.027 \rightarrow 00:11:31.787$ that really widely adopted by the

NOTE Confidence: 0.8817059

 $00{:}11{:}31{.}787 \dashrightarrow 00{:}11{:}33{.}627$ primary care providers and,

NOTE Confidence: 0.8817059

 $00{:}11{:}33.630 \dashrightarrow 00{:}11{:}36.794$ and they've been telling us for a while

NOTE Confidence: 0.8817059

00:11:36.794 --> 00:11:39.489 that screening average risk individuals,

NOTE Confidence: 0.8817059

00:11:39.490 --> 00:11:40.344 asymptomatic ages.

NOTE Confidence: 0.8817059

 $00:11:40.344 \rightarrow 00:11:43.760$ 50 to 75 is definitely been has definitely

NOTE Confidence: 0.8817059

 $00{:}11{:}43.836 \dashrightarrow 00{:}11{:}46.636$ been proven to be a substantial benefit,

NOTE Confidence: 0.8817059

 $00:11:46.640 \longrightarrow 00:11:48.735$ and there's really no question

NOTE Confidence: 0.8817059

00:11:48.735 --> 00:11:51.281 about it nowadays and there are

NOTE Confidence: 0.8817059

 $00{:}11{:}51{.}281 \dashrightarrow 00{:}11{:}53{.}146$ not that many cancers were.

NOTE Confidence: 0.8817059

 $00{:}11{:}53{.}150 \dashrightarrow 00{:}11{:}54{.}678$ Screening is clearly associated

NOTE Confidence: 0.8817059

00:11:54.678 --> 00:11:56.970 with a decrease in and cancer

NOTE Confidence: 0.8817059

 $00{:}11{:}57.034 \dashrightarrow 00{:}11{:}58.850$ and cancer related mortality.

NOTE Confidence: 0.8817059

00:11:58.850 - 00:12:00.885 The benefits of early detection

NOTE Confidence: 0.8817059

 $00:12:00.885 \longrightarrow 00:12:02.920$ according to the USPS TF.

NOTE Confidence: 0.8817059

 $00{:}12{:}02{.}920 \dashrightarrow 00{:}12{:}05{.}055$ An intervention for colon cancer

- NOTE Confidence: 0.8817059
- 00:12:05.055 --> 00:12:08.029 screening decline after age 75 and the

 $00{:}12{:}08{.}029 \dashrightarrow 00{:}12{:}10{.}717$ decision to screen individuals aged 76 two.

NOTE Confidence: 0.8817059

 $00:12:10.720 \longrightarrow 00:12:12.708$ 85 should be individualized,

NOTE Confidence: 0.8817059

 $00:12:12.708 \rightarrow 00:12:14.696$ considering really the overall

NOTE Confidence: 0.8817059

 $00:12:14.696 \longrightarrow 00:12:16.899$ health and prior screening.

NOTE Confidence: 0.8817059

00:12:16.900 --> 00:12:20.986 History and benefit for adults 85

NOTE Confidence: 0.8817059

 $00:12:20.986 \rightarrow 00:12:25.730$ and older in general has to be very.

NOTE Confidence: 0.8817059

 $00:12:25.730 \longrightarrow 00:12:27.665$ The potential adverse events usually

NOTE Confidence: 0.8817059

 $00{:}12{:}27.665 \dashrightarrow 00{:}12{:}29.213$ probably outweighed the benefits.

NOTE Confidence: 0.8817059

 $00:12:29.220 \longrightarrow 00:12:32.204$ I must say that there is a recent

NOTE Confidence: 0.8817059

 $00{:}12{:}32{.}204 \dashrightarrow 00{:}12{:}34{.}376$ literature showing that there are ways

NOTE Confidence: 0.8817059

00:12:34.376 --> 00:12:37.353 to re stratify and that they are

NOTE Confidence: 0.8817059

 $00{:}12{:}37{.}353 \dashrightarrow 00{:}12{:}39{.}981$ showing that actually even in older

NOTE Confidence: 0.8817059

 $00{:}12{:}39{.}981 \dashrightarrow 00{:}12{:}41{.}988$ individuals they could also benefit,

NOTE Confidence: 0.8817059

 $00{:}12{:}41.988 \dashrightarrow 00{:}12{:}45.130$ so I think we'll hear more about these,

 $00{:}12{:}45{.}130 \dashrightarrow 00{:}12{:}48{.}850$ and this probably could be a little bit

NOTE Confidence: 0.8817059

 $00:12:48.850 \rightarrow 00:12:52.540$ of moving moving target in the future.

NOTE Confidence: 0.8817059

 $00:12:52.540 \longrightarrow 00:12:53.470$ Modalities of screening.

NOTE Confidence: 0.8817059

 $00:12:53.470 \longrightarrow 00:12:56.450$ I think this is the one we are more

NOTE Confidence: 0.8817059

 $00{:}12{:}56.450 \dashrightarrow 00{:}12{:}58.315$ familiar with the the colonoscopy.

NOTE Confidence: 0.8817059

00:12:58.320 --> 00:13:00.360 This insertion of this flexible rubber

NOTE Confidence: 0.8817059

 $00:13:00.360 \longrightarrow 00:13:02.722$ tube through the ****** where we can

NOTE Confidence: 0.8817059

 $00:13:02.722 \rightarrow 00:13:05.060$ look at the entire colon with the

NOTE Confidence: 0.81444025

00:13:05.133 $\operatorname{-->}$ 00:13:06.838 camera and remove polyps which

NOTE Confidence: 0.81444025

 $00:13:06.838 \longrightarrow 00:13:09.199$ is at the end of the day.

NOTE Confidence: 0.81444025

00:13:09.200 --> 00:13:11.685 What really ends up saving lives because

NOTE Confidence: 0.81444025

 $00{:}13{:}11.685 \dashrightarrow 00{:}13{:}14.086$ those polyps left and check would go

NOTE Confidence: 0.81444025

 $00{:}13{:}14.086 \dashrightarrow 00{:}13{:}15.994$ and grow and develop into cancer,

NOTE Confidence: 0.81444025

 $00:13:16.000 \rightarrow 00:13:18.149$ so that's really what we want to

NOTE Confidence: 0.81444025

 $00{:}13{:}18{.}149 \dashrightarrow 00{:}13{:}20{.}080$ avoid and that's what's avoided.

NOTE Confidence: 0.81444025

 $00:13:20.080 \rightarrow 00:13:21.151$ Removing those polyps,

- NOTE Confidence: 0.81444025
- 00:13:21.151 --> 00:13:22.579 city Cornography is another.

 $00{:}13{:}22{.}580 \dashrightarrow 00{:}13{:}25{.}492$ Option, which is sort of a CAT scan

NOTE Confidence: 0.81444025

 $00:13:25.492 \rightarrow 00:13:27.298$ that's focusing on the column.

NOTE Confidence: 0.81444025

 $00{:}13{:}27{.}300 \dashrightarrow 00{:}13{:}28{.}788$ And stool based tests.

NOTE Confidence: 0.81444025

 $00:13:28.788 \rightarrow 00:13:31.770$ We have a couple of options nowadays.

NOTE Confidence: 0.81444025

 $00{:}13{:}31{.}770 \dashrightarrow 00{:}13{:}33{.}800$ We're really using the stool

NOTE Confidence: 0.81444025

 $00:13:33.800 \longrightarrow 00:13:35.830$ based test that we've seen.

NOTE Confidence: 0.81444025

 $00:13:35.830 \longrightarrow 00:13:37.860$ A significant also decrease in

NOTE Confidence: 0.81444025

 $00:13:37.860 \longrightarrow 00:13:39.484$ both incidence and mortality

NOTE Confidence: 0.81444025

 $00:13:39.484 \longrightarrow 00:13:41.100$ from that approach too.

NOTE Confidence: 0.81444025

 $00:13:41.100 \rightarrow 00:13:44.754$ So nowadays we do have a menu of options,

NOTE Confidence: 0.81444025

 $00:13:44.760 \longrightarrow 00:13:48.008$ all of them end up if positive in

NOTE Confidence: 0.81444025

00:13:48.008 --> 00:13:49.948 a colonoscopy, that's for sure,

NOTE Confidence: 0.81444025

 $00:13:49.948 \longrightarrow 00:13:52.204$ but some of those options are

NOTE Confidence: 0.81444025

 $00:13:52.204 \rightarrow 00:13:53.689$ less invasive food,

 $00:13:53.690 \longrightarrow 00:13:56.222$ so they could be more attractive

NOTE Confidence: 0.81444025

00:13:56.222 --> 00:13:57.910 as initial pre screening.

NOTE Confidence: 0.81444025

 $00:13:57.910 \rightarrow 00:13:59.638$ So we're dividing them between the

NOTE Confidence: 0.81444025

 $00{:}13{:}59{.}638 \dashrightarrow 00{:}14{:}02{.}001$ the ones that are we call direct

NOTE Confidence: 0.81444025

 $00{:}14{:}02{.}001 \dashrightarrow 00{:}14{:}03{.}916$ visualization ones who treated include

NOTE Confidence: 0.81444025

 $00:14:03.916 \longrightarrow 00:14:05.568$ the colonoscopy every 10 years.

NOTE Confidence: 0.81444025

 $00:14:05.570 \rightarrow 00:14:08.226$ Sigmoid osca P will be the shorter version,

NOTE Confidence: 0.81444025

 $00:14:08.230 \rightarrow 00:14:10.542$ or some way to ask would be every

NOTE Confidence: 0.81444025

00:14:10.542 --> 00:14:13.545 10 years plus a stool test or city

NOTE Confidence: 0.81444025

 $00:14:13.545 \rightarrow 00:14:15.492$ colonography approved for every five

NOTE Confidence: 0.81444025

00:14:15.492 --> 00:14:17.916 years and then those two based as I

NOTE Confidence: 0.81444025

00:14:17.916 --> 00:14:20.884 was talking to you about Efobi teza know one.

NOTE Confidence: 0.81444025

 $00{:}14{:}20.890 \dashrightarrow 00{:}14{:}23.878$ Most of it is no longer used but fit.

NOTE Confidence: 0.81444025

00:14:23.880 --> 00:14:25.670 Testing is definitely widely used

NOTE Confidence: 0.81444025

 $00{:}14{:}25.670 \dashrightarrow 00{:}14{:}27.460$ and that African multi target

NOTE Confidence: 0.81444025

 $00:14:27.524 \longrightarrow 00:14:29.330$ DNA test is also another stool

- NOTE Confidence: 0.81444025
- $00:14:29.330 \longrightarrow 00:14:30.940$ test that's being used again.

00:14:30.940 --> 00:14:32.263 Windows are positive,

NOTE Confidence: 0.81444025

 $00:14:32.263 \rightarrow 00:14:35.850$ a colonoscopy is the thing to do here,

NOTE Confidence: 0.81444025

 $00{:}14{:}35{.}850 \dashrightarrow 00{:}14{:}38{.}334$ but as doctor conventional so not

NOTE Confidence: 0.81444025

 $00{:}14{:}38{.}334 \dashrightarrow 00{:}14{:}41{.}936$ all is good news and the fact that

NOTE Confidence: 0.81444025

 $00:14:41.936 \longrightarrow 00:14:43.792$ we're seeing more individuals

NOTE Confidence: 0.81444025

 $00:14:43.792 \longrightarrow 00:14:46.548$ not only not only movie stars,

NOTE Confidence: 0.81444025

 $00:14:46.550 \rightarrow 00:14:48.944$ but really we hear of a significant

NOTE Confidence: 0.81444025

00:14:48.944 --> 00:14:50.726 number of young individuals

NOTE Confidence: 0.81444025

00:14:50.726 --> 00:14:52.787 developing colorectal cancer,

NOTE Confidence: 0.81444025

 $00:14:52.790 \longrightarrow 00:14:55.020$ that's truly a trend that's

NOTE Confidence: 0.81444025

 $00{:}14{:}55{.}020 \dashrightarrow 00{:}14{:}57{.}250$ been documented since the 1990s.

NOTE Confidence: 0.81444025

 $00{:}14{:}57{.}250 \dashrightarrow 00{:}14{:}57{.}718$ This,

NOTE Confidence: 0.81444025

00:14:57.718 --> 00:15:00.526 along with this very steady decline

NOTE Confidence: 0.81444025

 $00{:}15{:}00{.}526 \dashrightarrow 00{:}15{:}03{.}108$ that we talked about in the.

 $00:15:03.110 \longrightarrow 00:15:05.918$ Older than 50 for the individuals

NOTE Confidence: 0.81444025

 $00{:}15{:}05{.}918 \dashrightarrow 00{:}15{:}08{.}190$ that are 20 to 49,

NOTE Confidence: 0.81444025

 $00:15:08.190 \rightarrow 00:15:11.613$ we see this steady rise in colorectal

NOTE Confidence: 0.81444025

 $00{:}15{:}11.613 \dashrightarrow 00{:}15{:}14.659$ cancer incidence both for men and women.

NOTE Confidence: 0.81444025

00:15:14.660 -> 00:15:16.504 Very, very unfortunate trend.

NOTE Confidence: 0.81444025

00:15:16.504 --> 00:15:17.426 And actually,

NOTE Confidence: 0.81444025

 $00:15:17.430 \longrightarrow 00:15:19.865$ when we're looking at individuals

NOTE Confidence: 0.81444025

 $00:15:19.865 \longrightarrow 00:15:23.311$ that are each 50 here in this

NOTE Confidence: 0.81444025

 $00{:}15{:}23{.}311 \dashrightarrow 00{:}15{:}26{.}071$ and these incidents for the age

NOTE Confidence: 0.81444025

 $00:15:26.071 \longrightarrow 00:15:28.058$ 15 incidents for the 45.

NOTE Confidence: 0.81444025

 $00:15:28.060 \longrightarrow 00:15:31.236$ What we see here is that in 1993

NOTE Confidence: 0.81444025

 $00:15:31.236 \longrightarrow 00:15:34.158$ the risk of colorectal cancer.

NOTE Confidence: 0.81444025

 $00:15:34.160 \longrightarrow 00:15:36.841$ For a 50 year old is exactly

NOTE Confidence: 0.81444025

 $00{:}15{:}36{.}841 \dashrightarrow 00{:}15{:}39{.}914$ the same as the risk that it is

NOTE Confidence: 0.81444025

 $00:15:39.914 \longrightarrow 00:15:42.700$ right now for a 45 year old.

NOTE Confidence: 0.81444025

 $00:15:42.700 \rightarrow 00:15:45.040$ So so several years back actually

 $00:15:45.040 \rightarrow 00:15:47.740$ their risk was pretty similar for 55,

NOTE Confidence: 0.81444025

 $00{:}15{:}47{.}740 \dashrightarrow 00{:}15{:}50{.}456$ then that is right now for 45,

NOTE Confidence: 0.81444025

 $00{:}15{:}50{.}460 \dashrightarrow 00{:}15{:}53{.}036$ so we see this steady decline in

NOTE Confidence: 0.81444025

 $00:15:53.036 \longrightarrow 00:15:55.824$ the incidence of the of the

NOTE Confidence: 0.81444025

 $00{:}15{:}55{.}824 \dashrightarrow 00{:}15{:}57{.}829$ age of diagnosis very unfortunate.

NOTE Confidence: 0.81444025

 $00{:}15{:}57{.}830 \dashrightarrow 00{:}15{:}59{.}924$ Another important aspect is that for

NOTE Confidence: 0.81444025

 $00:15:59.924 \rightarrow 00:16:02.324$ many years we have been recommending

NOTE Confidence: 0.81444025

 $00:16:02.324 \rightarrow 00:16:04.188$ to screen start screening.

NOTE Confidence: 0.81444025

00:16:04.190 --> 00:16:06.845 Directed at an African Americans

NOTE Confidence: 0.81444025

 $00:16:06.845 \longrightarrow 00:16:09.500$ for colorectal cancer at 45.

NOTE Confidence: 0.81444025

 $00:16:09.500 \longrightarrow 00:16:12.810$ Just because there were significantly

NOTE Confidence: 0.81444025

00:16:12.810 --> 00:16:15.458 higher number of individuals

NOTE Confidence: 0.81444025

 $00{:}16{:}15{.}458 \dashrightarrow 00{:}16{:}18{.}696$ being diagnosed at a younger age.

NOTE Confidence: 0.81444025

 $00{:}16{:}18{.}700 \dashrightarrow 00{:}16{:}20{.}750$ Over the last few years,

NOTE Confidence: 0.81444025

 $00{:}16{:}20.750 \dashrightarrow 00{:}16{:}23.312$ is that white and actually all the

 $00:16:23.312 \rightarrow 00:16:25.875$ ethnic groups F with that trend

NOTE Confidence: 0.81444025

 $00{:}16{:}25{.}875 \dashrightarrow 00{:}16{:}27{.}719$ increasing in the incidents,

NOTE Confidence: 0.7980542

 $00{:}16{:}27{.}720$ --> $00{:}16{:}30{.}792$ they basically pretty much are at the same NOTE Confidence: 0.7980542

 $00:16:30.792 \rightarrow 00:16:34.275$ level as African Americans are at this time.

NOTE Confidence: 0.7980542

 $00:16:34.280 \rightarrow 00:16:36.290$ So really, that's extremely concerning

NOTE Confidence: 0.7980542

00:16:36.290 --> 00:16:38.790 because instead of all doing better,

NOTE Confidence: 0.7980542

 $00:16:38.790 \rightarrow 00:16:41.226$ actually what we've done is just

NOTE Confidence: 0.7980542

 $00:16:41.226 \longrightarrow 00:16:42.850$ equalizing upwards towards the

NOTE Confidence: 0.7980542

00:16:42.922 --> 00:16:44.952 higher incidence with the African

NOTE Confidence: 0.7980542

 $00{:}16{:}44{.}952 \dashrightarrow 00{:}16{:}46{.}982$ Americans who had the photos,

NOTE Confidence: 0.7980542

 $00:16:46.990 \longrightarrow 00:16:49.390$ the group with the highest.

NOTE Confidence: 0.7980542

 $00:16:49.390 \longrightarrow 00:16:51.450$ Levels of young onset cancer.

NOTE Confidence: 0.7980542

 $00{:}16{:}51{.}450 \dashrightarrow 00{:}16{:}53{.}510$ So so because of these

NOTE Confidence: 0.7980542

 $00{:}16{:}53{.}510 \dashrightarrow 00{:}16{:}55{.}570$ trends and what you've heard,

NOTE Confidence: 0.7980542

 $00:16:55.570 \rightarrow 00:16:57.570$ the American Cancer Society couple

NOTE Confidence: 0.7980542

 $00:16:57.570 \rightarrow 00:16:59.570$ years ago started recommending to

- NOTE Confidence: 0.7980542
- $00:16:59.631 \rightarrow 00:17:01.746$ screen for average risk individuals,
- NOTE Confidence: 0.7980542
- 00:17:01.750 --> 00:17:04.282 meaning individuals who feel fine who
- NOTE Confidence: 0.7980542
- 00:17:04.282 --> 00:17:07.550 do not have family history who do not
- NOTE Confidence: 0.7980542
- $00:17:07.550 \rightarrow 00:17:10.312$ have any reason to believe that they
- NOTE Confidence: 0.7980542
- $00:17:10.312 \rightarrow 00:17:13.266$ have an average higher than average risk
- NOTE Confidence: 0.7980542
- $00{:}17{:}13.266 \dashrightarrow 00{:}17{:}16.576$ of correct cancer again to start at 45.
- NOTE Confidence: 0.7980542
- $00:17:16.580 \rightarrow 00:17:19.876$ And while USPS TF that we mentioned before,
- NOTE Confidence: 0.7980542
- $00{:}17{:}19.880 \dashrightarrow 00{:}17{:}21.266$ has been recommended.
- NOTE Confidence: 0.7980542
- 00:17:21.266 --> 00:17:23.576 MH 5050 as Africans mentioned,
- NOTE Confidence: 0.7980542
- $00:17:23.580 \longrightarrow 00:17:26.708$ the USPS TF put a draft out last
- NOTE Confidence: 0.7980542
- $00{:}17{:}26.708 \dashrightarrow 00{:}17{:}28.908$ October that they were suggesting
- NOTE Confidence: 0.7980542
- $00:17:28.908 \longrightarrow 00:17:32.009$ to revise that age of onset of
- NOTE Confidence: 0.7980542
- $00:17:32.099 \rightarrow 00:17:35.054$ colorectal cancer screening for average
- NOTE Confidence: 0.7980542
- $00{:}17{:}35{.}054 \dashrightarrow 00{:}17{:}38{.}471$ individuals to 45 instead of 50.
- NOTE Confidence: 0.7980542
- $00:17:38.471 \rightarrow 00:17:42.159$ That's probably going to be approved and I
- NOTE Confidence: 0.7980542

 $00:17:42.159 \rightarrow 00:17:46.175$ think that's where we're moving at this time.

NOTE Confidence: 0.7980542

 $00{:}17{:}46.180 \dashrightarrow 00{:}17{:}49.572$ To really make sure that we are capturing

NOTE Confidence: 0.7980542

 $00:17:49.572 \longrightarrow 00:17:52.566$ more and more individuals, and.

NOTE Confidence: 0.7980542

 $00:17:52.566 \rightarrow 00:17:55.030$ We're saving more lives.

NOTE Confidence: 0.7980542

 $00{:}17{:}55{.}030 \dashrightarrow 00{:}17{:}56{.}138$ Thank you very much.

NOTE Confidence: 0.8843613

00:17:59.040 --> 00:18:00.590 Thank you so much Doctor,

NOTE Confidence: 0.8843613

 $00:18:00.590 \longrightarrow 00:18:02.140$ you are that was great.

NOTE Confidence: 0.884361299999999

 $00:18:02.140 \longrightarrow 00:18:04.162$ So I encourage the audience to

NOTE Confidence: 0.884361299999999

00:18:04.162 --> 00:18:06.426 please feel free to ask questions in

NOTE Confidence: 0.884361299999999

 $00:18:06.426 \longrightarrow 00:18:09.067$ the Q&A box we can get to them in

NOTE Confidence: 0.884361299999999

 $00:18:09.067 \longrightarrow 00:18:11.139$ writing or we will answer them by

NOTE Confidence: 0.884361299999999

 $00:18:11.139 \rightarrow 00:18:13.300$ we will go next to Doctor Mcwhorter.

NOTE Confidence: 0.8940914

00:18:18.200 --> 00:18:19.200 Thank you.

NOTE Confidence: 0.854344

 $00{:}18{:}22.600 \dashrightarrow 00{:}18{:}24.838$ Quarter I'm a colon and rectal

NOTE Confidence: 0.854344

 $00{:}18{:}24.838 \dashrightarrow 00{:}18{:}26.330$ surgeon at Greenwich Hospital.

NOTE Confidence: 0.854344

00:18:26.330 --> 00:18:28.376 Thank you for having me and

- NOTE Confidence: 0.854344
- $00:18:28.376 \longrightarrow 00:18:30.809$ welcome to all of the audience.
- NOTE Confidence: 0.854344
- 00:18:30.810 --> 00:18:32.952 I'm talking about the surgical treatment
- NOTE Confidence: 0.854344
- $00{:}18{:}32{.}952 \dashrightarrow 00{:}18{:}35{.}280$ of colon cancer and rectal cancer.
- NOTE Confidence: 0.824931
- 00:18:37.710 --> 00:18:40.960 Tonight. I'm going to try to
- NOTE Confidence: 0.824931
- 00:18:40.960 --> 00:18:43.260 put my timer on so that I stay.
- NOTE Confidence: 0.824931
- 00:18:43.260 --> 00:18:45.020 Right on time, surgical treatment
- NOTE Confidence: 0.824931
- $00{:}18{:}45{.}020 \dashrightarrow 00{:}18{:}47{.}260$ of colon cancer and rectal cancer.
- NOTE Confidence: 0.824931
- $00{:}18{:}47.260 \dashrightarrow 00{:}18{:}50.396$ So I want to make a distinction
- NOTE Confidence: 0.824931
- $00{:}18{:}50{.}396 \dashrightarrow 00{:}18{:}53{.}239$ between what the two things are.
- NOTE Confidence: 0.824931
- $00:18:53.240 \longrightarrow 00:18:55.550$ So a little bit of anatomy.
- NOTE Confidence: 0.824931
- 00:18:55.550 --> 00:18:57.090 I am a surgeon,
- NOTE Confidence: 0.824931
- $00:18:57.090 \longrightarrow 00:18:59.412$ so the colon and ****** are
- NOTE Confidence: 0.824931
- $00:18:59.412 \longrightarrow 00:19:01.764$ depicted in this diagram in the
- NOTE Confidence: 0.824931
- $00{:}19{:}01.764 \dashrightarrow 00{:}19{:}04.019$ right upper portion of the screen.
- NOTE Confidence: 0.824931
- $00{:}19{:}04{.}020 \dashrightarrow 00{:}19{:}06{.}715$ The colon is the 1st 5 feet
- NOTE Confidence: 0.824931

- $00:19:06.715 \longrightarrow 00:19:07.870$ of large intestine.
- NOTE Confidence: 0.824931
- $00:19:07.870 \longrightarrow 00:19:10.684$ The ****** is the continuation of the
- NOTE Confidence: 0.824931
- $00:19:10.684 \rightarrow 00:19:13.258$ large intestine as it exits the body.
- NOTE Confidence: 0.824931
- $00:19:13.260 \longrightarrow 00:19:14.908$ Eliminate ING our waste.
- NOTE Confidence: 0.824931
- 00:19:14.908 --> 00:19:18.165 The purpose of the colon is to store
- NOTE Confidence: 0.824931
- $00{:}19{:}18{.}165 \dashrightarrow 00{:}19{:}20{.}957$ our waste and draw water out of it.
- NOTE Confidence: 0.824931
- $00:19:20.960 \longrightarrow 00:19:22.890$ So colon cancer is doctor.
- NOTE Confidence: 0.824931
- $00:19:22.890 \longrightarrow 00:19:24.558$ Yours pointed out is.
- NOTE Confidence: 0.824931
- $00{:}19{:}24.558 \dashrightarrow 00{:}19{:}27.576$ Is cancer that develops in the lining
- NOTE Confidence: 0.824931
- $00:19:27.576 \longrightarrow 00:19:30.607$ or mucosa of the colon or large
- NOTE Confidence: 0.824931
- $00:19:30.607 \rightarrow 00:19:32.760$ intestine which are synonymous?
- NOTE Confidence: 0.824931
- $00:19:32.760 \longrightarrow 00:19:35.203$ I want to point out that there
- NOTE Confidence: 0.824931
- $00:19:35.203 \rightarrow 00:19:36.850$ are differences in management
- NOTE Confidence: 0.824931
- $00:19:36.850 \longrightarrow 00:19:38.958$ between these two cancers.
- NOTE Confidence: 0.824931
- 00:19:38.960 --> 00:19:40.157 In colon cancer.
- NOTE Confidence: 0.824931
- $00:19:40.157 \rightarrow 00:19:42.551$ I think even my oncology colleagues

- NOTE Confidence: 0.824931
- $00:19:42.551 \rightarrow 00:19:44.740$ would agree surgery is primary.
- NOTE Confidence: 0.9020555
- $00:19:46.940 \longrightarrow 00:19:49.856$ We removed the cancer in less.
- NOTE Confidence: 0.9020555
- $00{:}19{:}49{.}860 \dashrightarrow 00{:}19{:}53{.}206$ It has already spread to distant organs
- NOTE Confidence: 0.9020555
- $00{:}19{:}53.206 \dashrightarrow 00{:}19{:}56.679$ and then after removal of the cancer,
- NOTE Confidence: 0.9020555
- $00{:}19{:}56{.}680 \dashrightarrow 00{:}20{:}00{.}649$ there may be a role for chemotherapy.
- NOTE Confidence: 0.9020555
- $00{:}20{:}00{.}650 \dashrightarrow 00{:}20{:}03{.}050$ Some patients don't have to have
- NOTE Confidence: 0.9020555
- $00:20:03.050 \rightarrow 00:20:06.219$ chemotherapy, and that's fantastic.
- NOTE Confidence: 0.9020555
- $00{:}20{:}06{.}220 \dashrightarrow 00{:}20{:}08{.}614$ I want to draw the distinction to
- NOTE Confidence: 0.9020555
- $00{:}20{:}08{.}614 \dashrightarrow 00{:}20{:}10{.}804$ rectal cancer, where surgery is but
- NOTE Confidence: 0.9020555
- $00:20:10.804 \longrightarrow 00:20:13.840$ one of the tools in the toolkit.
- NOTE Confidence: 0.9020555
- $00:20:13.840 \longrightarrow 00:20:17.459$ Rectal cancer is much more of a
- NOTE Confidence: 0.9020555
- $00{:}20{:}17{.}459 \dashrightarrow 00{:}20{:}20{.}054$ multi modality, not the colon.
- NOTE Confidence: 0.9020555
- 00:20:20.054 --> 00:20:22.076 Cancer isn't, but rectal.
- NOTE Confidence: 0.9020555
- 00:20:22.076 --> 00:20:25.034 Cancer is very much a multi
- NOTE Confidence: 0.9020555
- 00:20:25.034 --> 00:20:26.790 modality treatment disease,
- NOTE Confidence: 0.9020555

 $00:20:26.790 \longrightarrow 00:20:28.032$ where chemotherapy,

NOTE Confidence: 0.9020555

 $00:20:28.032 \rightarrow 00:20:31.758$ radiation and surgery are all utilized

NOTE Confidence: 0.9020555

 $00{:}20{:}31.758 \dashrightarrow 00{:}20{:}35.966$ in the management of rectal cancer I.

NOTE Confidence: 0.9020555

 $00:20:35.970 \rightarrow 00:20:38.938$ I often sort of mentioned in my patients.

NOTE Confidence: 0.9020555

 $00{:}20{:}38{.}940 \dashrightarrow 00{:}20{:}41{.}430$ You can think of three.

NOTE Confidence: 0.9020555

 $00{:}20{:}41.430 \dashrightarrow 00{:}20{:}43.418$ Treatment modalities for cancers.

NOTE Confidence: 0.9020555

 $00:20:43.418 \longrightarrow 00:20:46.400$ And this is pretty much true.

NOTE Confidence: 0.9020555

 $00:20:46.400 \rightarrow 00:20:49.810$ I think for all cancers one is to do surgery.

NOTE Confidence: 0.9020555

 $00{:}20{:}49{.}810 \dashrightarrow 00{:}20{:}51{.}763$ One is to do radiation and one

NOTE Confidence: 0.9020555

 $00:20:51.763 \rightarrow 00:20:53.560$ is to give chemotherapy.

NOTE Confidence: 0.9020555

 $00{:}20{:}53.560 \dashrightarrow 00{:}20{:}56.242$ So those are our three treatment

NOTE Confidence: 0.9020555

 $00{:}20{:}56{.}242 \dashrightarrow 00{:}20{:}59{.}237$ modalities and surgery plays a role in

NOTE Confidence: 0.9020555

 $00{:}20{:}59{.}237 \dashrightarrow 00{:}21{:}01{.}487$ both colon cancer and rectal cancer.

NOTE Confidence: 0.9020555

 $00:21:01.490 \rightarrow 00:21:05.536$ However, it's more primary to colon cancer.

NOTE Confidence: 0.9020555

 $00{:}21{:}05{.}540 \dashrightarrow 00{:}21{:}07{.}440$ What's the standard pathway for

NOTE Confidence: 0.9020555

00:21:07.440 --> 00:21:08.960 management of colon cancer?

- NOTE Confidence: 0.9020555
- $00:21:08.960 \rightarrow 00:21:10.862$ One make the diagnosis that's generally

 $00{:}21{:}10.862 \dashrightarrow 00{:}21{:}13.520$ in the court of the gas troenterologist,

NOTE Confidence: 0.9020555

 $00:21:13.520 \longrightarrow 00:21:15.800$ who in most cases it's being

NOTE Confidence: 0.9020555

 $00:21:15.800 \rightarrow 00:21:16.940$ diagnosed with colonoscopy,

NOTE Confidence: 0.9020555

 $00{:}21{:}16{.}940 \dashrightarrow 00{:}21{:}19{.}348$ where a biopsy is taken of suspicious

NOTE Confidence: 0.9020555

 $00:21:19.348 \longrightarrow 00:21:22.097$ tissue in the colon and the pathologist

NOTE Confidence: 0.9020555

 $00:21:22.097 \longrightarrow 00:21:24.157$ confirms that this is cancer.

NOTE Confidence: 0.9020555

 $00:21:24.160 \longrightarrow 00:21:26.060$ I always tell my patients,

NOTE Confidence: 0.9020555

 $00:21:26.060 \longrightarrow 00:21:28.692$ regardless of the type of cancer your

NOTE Confidence: 0.9020555

00:21:28.692 --> 00:21:31.592 next step is to figure out is this

NOTE Confidence: 0.9020555

 $00{:}21{:}31{.}592 \dashrightarrow 00{:}21{:}33{.}893$ early cancer or is this advanced

NOTE Confidence: 0.9020555

 $00{:}21{:}33.893 \dashrightarrow 00{:}21{:}36.528$ cancer and that's called staging.

NOTE Confidence: 0.9020555

 $00{:}21{:}36{.}530 \dashrightarrow 00{:}21{:}39{.}458$ Staging involves getting a CAT scan

NOTE Confidence: 0.9020555

 $00{:}21{:}39{.}458 \dashrightarrow 00{:}21{:}43{.}456$ and doing a blood test called CEA to

NOTE Confidence: 0.9020555

 $00:21:43.456 \rightarrow 00:21:47.400$ determine how we caught this early or or not.

 $00{:}21{:}47{.}400 \dashrightarrow 00{:}21{:}50{.}304$ Step three is in most cases for colon

NOTE Confidence: 0.9020555

 $00:21:50.304 \rightarrow 00:21:53.819$ cancer is the surgeon who removes the cancer.

NOTE Confidence: 0.9020555

 $00:21:53.820 \longrightarrow 00:21:56.214$ The removed piece of colon goes

NOTE Confidence: 0.9020555

 $00{:}21{:}56{.}214 \dashrightarrow 00{:}21{:}58{.}673$ to the pathologist who tells us

NOTE Confidence: 0.9020555

 $00:21:58.673 \rightarrow 00:22:00.628$ how advanced this cancer is,

NOTE Confidence: 0.9020555

 $00:22:00.630 \longrightarrow 00:22:02.958$ how deeply into the wall of

NOTE Confidence: 0.9020555

00:22:02.958 --> 00:22:05.040 the colon did it grow,

NOTE Confidence: 0.9020555

 $00:22:05.040 \rightarrow 00:22:07.050$ and did lymph nodes becoming?

NOTE Confidence: 0.9020555

00:22:07.050 --> 00:22:09.458 Did the colon cancer spread into the

NOTE Confidence: 0.9020555

 $00{:}22{:}09{.}458 \dashrightarrow 00{:}22{:}11{.}913$ lymph nodes and then after after

NOTE Confidence: 0.9020555

 $00{:}22{:}11{.}913 \dashrightarrow 00{:}22{:}14{.}163$ the surgeon and pathologist are

NOTE Confidence: 0.9020555

00:22:14.163 --> 00:22:17.400 primarily involved, the oncologist?

NOTE Confidence: 0.9020555

 $00{:}22{:}17{.}400 \dashrightarrow 00{:}22{:}20{.}040$ Takes the ball and either delivered

NOTE Confidence: 0.9020555

 $00:22:20.040 \longrightarrow 00:22:21.360$ is the chemotherapy,

NOTE Confidence: 0.9020555

00:22:21.360 - 00:22:23.808 or if chemotherapy is not necessary

NOTE Confidence: 0.9020555

 $00:22:23.808 \rightarrow 00:22:26.639$ in a case of colon cancer,

- NOTE Confidence: 0.9020555
- 00:22:26.640 --> 00:22:28.840 young cologist is involved for

 $00:22:28.840 \longrightarrow 00:22:29.720$ their surveillance.

NOTE Confidence: 0.9020555

00:22:29.720 --> 00:22:32.360 That colon cancer doesn't come back,

NOTE Confidence: 0.9020555

 $00:22:32.360 \longrightarrow 00:22:33.680$ which includes having

NOTE Confidence: 0.9020555

 $00:22:33.680 \rightarrow 00:22:35.440$ colonoscopies having blood tests,

NOTE Confidence: 0.9020555

 $00:22:35.440 \longrightarrow 00:22:39.766$ and in some cases having CAT scans.

NOTE Confidence: 0.9020555

 $00:22:39.770 \rightarrow 00:22:43.046$ So who is the quarterback at first?

NOTE Confidence: 0.9020555

 $00:22:43.050 \rightarrow 00:22:45.380$ The quarterback is the gastroenterologist

NOTE Confidence: 0.9020555

 $00{:}22{:}45{.}380 \dashrightarrow 00{:}22{:}48{.}950$ here, depicted by a colonoscope.

NOTE Confidence: 0.9020555

00:22:48.950 --> 00:22:49.471 Second,

NOTE Confidence: 0.9020555

 $00{:}22{:}49{.}471 \dashrightarrow 00{:}22{:}52{.}076$ after the diagnosis is made,

NOTE Confidence: 0.9020555

 $00{:}22{:}52.080 \dashrightarrow 00{:}22{:}54.208$ the by the gastroenterologist,

NOTE Confidence: 0.9020555

 $00:22:54.208 \longrightarrow 00:22:57.400$ the quarterback in helping guide the

NOTE Confidence: 0.9020555

 $00:22:57.481 \longrightarrow 00:22:59.821$ patient through this experience is

NOTE Confidence: 0.9020555

 $00:22:59.821 \rightarrow 00:23:03.040$ the surgeon who does the operation.

00:23:03.040 --> 00:23:06.412 Manage is the recovery from surgery

NOTE Confidence: 0.9020555

 $00{:}23{:}06{.}412 \dashrightarrow 00{:}23{:}09{.}695$ and then three depicted down here

NOTE Confidence: 0.9020555

 $00{:}23{:}09{.}695 \dashrightarrow 00{:}23{:}12{.}957$ in the lowest part of the diagram.

NOTE Confidence: 0.9020555

 $00:23:12.960 \longrightarrow 00:23:15.570$ The pills represent the oncologist,

NOTE Confidence: 0.9020555

 $00:23:15.570 \dashrightarrow 00:23:19.386$ who gives the medicine that kills.

NOTE Confidence: 0.9020555

00:23:19.390 --> 00:23:21.700 Cancer that was not removed by surgery.

NOTE Confidence: 0.9020555

 $00:23:21.700 \rightarrow 00:23:23.596$ What we call systemic disease disease

NOTE Confidence: 0.9020555

 $00:23:23.596 \rightarrow 00:23:26.318$ that may be in the blood blood stream.

NOTE Confidence: 0.9020555

 $00{:}23{:}26{.}320 \dashrightarrow 00{:}23{:}29{.}141$ Maybe in lymph nodes may be trying

NOTE Confidence: 0.9020555

 $00:23:29.141 \rightarrow 00:23:32.547$ to set up shop in distant organs.

NOTE Confidence: 0.9020555

 $00{:}23{:}32{.}550 \dashrightarrow 00{:}23{:}33{.}780$ Rectal cancer again.

NOTE Confidence: 0.9020555

 $00{:}23{:}33{.}780 \dashrightarrow 00{:}23{:}36{.}650$ To draw the distinction to colon cancer

NOTE Confidence: 0.85033584

 $00:23:36.727 \longrightarrow 00:23:38.367$ is not so cookie cutter.

NOTE Confidence: 0.85033584

 $00:23:38.370 \longrightarrow 00:23:40.670$ There are many options for

NOTE Confidence: 0.85033584

 $00{:}23{:}40.670 \dashrightarrow 00{:}23{:}42.970$ how rectal cancer is managed.

NOTE Confidence: 0.85033584

00:23:42.970 --> 00:23:44.840 Number one, some patients will

 $00:23:44.840 \rightarrow 00:23:47.098$ get chemotherapy and they will get

NOTE Confidence: 0.85033584

 $00{:}23{:}47.098 \dashrightarrow 00{:}23{:}49.373$ radiation and they will get surgery at

NOTE Confidence: 0.85033584

 $00{:}23{:}49{.}373 \dashrightarrow 00{:}23{:}51{.}677$ some point in their treatment course.

NOTE Confidence: 0.85033584

 $00:23:51.680 \rightarrow 00:23:53.918$ Some patients who have a rectal

NOTE Confidence: 0.85033584

 $00:23:53.918 \longrightarrow 00:23:56.441$ cancer that is higher up in their

NOTE Confidence: 0.85033584

 $00:23:56.441 \rightarrow 00:23:59.290 ****** \text{ may only get surgery and}$

NOTE Confidence: 0.85033584

 $00:23:59.290 \longrightarrow 00:24:01.820$ not need the other modalities.

NOTE Confidence: 0.85033584

00:24:01.820 --> 00:24:03.740 Some patients will have surgery

NOTE Confidence: 0.85033584

 $00{:}24{:}03.740 \dashrightarrow 00{:}24{:}06.410$ before they get chemo and radiation.

NOTE Confidence: 0.85033584

00:24:06.410 --> 00:24:08.315 Some patients will get surgery

NOTE Confidence: 0.85033584

00:24:08.315 --> 00:24:10.990 after they get chemo and radiation.

NOTE Confidence: 0.85033584

 $00{:}24{:}10{.}990 \dashrightarrow 00{:}24{:}14{.}640$ It's a very confusing landscape.

NOTE Confidence: 0.85033584

 $00{:}24{:}14.640 \dashrightarrow 00{:}24{:}16.460$ For patients to understand,

NOTE Confidence: 0.85033584

 $00:24:16.460 \longrightarrow 00:24:17.370$ even frankly,

NOTE Confidence: 0.85033584

00:24:17.370 --> 00:24:20.555 for doctors to understand #5I point out,

- $00:24:20.560 \longrightarrow 00:24:21.548$ down here.
- NOTE Confidence: 0.85033584
- $00{:}24{:}21{.}548 \dashrightarrow 00{:}24{:}24{.}018$ Some patients now are getting
- NOTE Confidence: 0.85033584
- 00:24:24.018 --> 00:24:26.386 chemotherapy and radiation for rectal
- NOTE Confidence: 0.85033584
- $00:24:26.386 \rightarrow 00:24:29.200$ cancer and not having to have surgery.
- NOTE Confidence: 0.85033584
- $00{:}24{:}29{.}200 \dashrightarrow 00{:}24{:}31{.}492$ That's because we have found over
- NOTE Confidence: 0.85033584
- $00{:}24{:}31{.}492 \dashrightarrow 00{:}24{:}34{.}804$ the last decade or so that in some
- NOTE Confidence: 0.85033584
- $00:24:34.804 \longrightarrow 00:24:36.508$ cases delivery of chemotherapy
- NOTE Confidence: 0.85033584
- $00{:}24{:}36{.}508 \dashrightarrow 00{:}24{:}39{.}176$ and deliver radiation can actually
- NOTE Confidence: 0.85033584
- $00{:}24{:}39{.}176$ --> $00{:}24{:}41{.}488$ eliminate the cancer altogether,
- NOTE Confidence: 0.85033584
- $00:24:41.490 \rightarrow 00:24:44.220$ and in certain highly selected patients,
- NOTE Confidence: 0.85033584
- $00:24:44.220 \longrightarrow 00:24:46.052$ surgery may be avoided.
- NOTE Confidence: 0.85033584
- $00{:}24{:}46.052 \dashrightarrow 00{:}24{:}50.448$ So this is simply to point out that it is a.
- NOTE Confidence: 0.85033584
- $00{:}24{:}50{.}450 \dashrightarrow 00{:}24{:}51{.}440$ These are different.
- NOTE Confidence: 0.85033584
- $00:24:51.440 \longrightarrow 00:24:53.420$ I'm not sure that they're biologically
- NOTE Confidence: 0.85033584
- $00{:}24{:}53{.}420 \dashrightarrow 00{:}24{:}54{.}819$ so different diseases.
- NOTE Confidence: 0.85033584
- $00:24:54.820 \longrightarrow 00:24:56.640$ It's partly their anatomy where

- NOTE Confidence: 0.85033584
- $00{:}24{:}56{.}640 \dashrightarrow 00{:}24{:}57{.}368$ they're located.
- NOTE Confidence: 0.85033584
- $00{:}24{:}57{.}370 \dashrightarrow 00{:}24{:}59{.}272$ One could certainly talk about the
- NOTE Confidence: 0.85033584
- $00:24:59.272 \rightarrow 00:25:01.739$ biology of the two different diseases,
- NOTE Confidence: 0.85033584
- $00:25:01.740 \rightarrow 00:25:04.900$ but they're certainly managed differently.
- NOTE Confidence: 0.85033584
- $00{:}25{:}04{.}900 \dashrightarrow 00{:}25{:}07{.}572$ So a little bit of you know the
- NOTE Confidence: 0.85033584
- $00{:}25{:}07{.}572 \dashrightarrow 00{:}25{:}10{.}269$ the meat and potatoes of surgery
- NOTE Confidence: 0.85033584
- $00{:}25{:}10.269 \dashrightarrow 00{:}25{:}13.179$ for colon cancer or rectal cancer.
- NOTE Confidence: 0.85033584
- $00{:}25{:}13.180 \dashrightarrow 00{:}25{:}15.250$ Three modalities that I've shown
- NOTE Confidence: 0.85033584
- $00{:}25{:}15{.}250 \dashrightarrow 00{:}25{:}16{.}906$ here on the left.
- NOTE Confidence: 0.85033584
- $00{:}25{:}16{.}910 \dashrightarrow 00{:}25{:}19{.}394$ I've shown patients abdomen with an
- NOTE Confidence: 0.85033584
- $00:25:19.394 \rightarrow 00:25:21.050$ incision representing open surgery.
- NOTE Confidence: 0.85033584
- 00:25:21.050 --> 00:25:23.246 The surgeon can make an incision
- NOTE Confidence: 0.85033584
- $00:25:23.246 \longrightarrow 00:25:26.112$ on the belly and do their work
- NOTE Confidence: 0.85033584
- 00:25:26.112 --> 00:25:28.317 fully inside the patient's abdomen
- NOTE Confidence: 0.85033584
- $00:25:28.317 \longrightarrow 00:25:30.955$ with their hands in their in
- NOTE Confidence: 0.85033584

- $00:25:30.955 \rightarrow 00:25:32.635$ their instruments in there.
- NOTE Confidence: 0.85033584
- $00{:}25{:}32.640 \dashrightarrow 00{:}25{:}35.478$ The middle diagram shows a patient.
- NOTE Confidence: 0.85033584
- 00:25:35.480 --> 00:25:35.946 Gent,
- NOTE Confidence: 0.85033584
- $00:25:35.946 \longrightarrow 00:25:38.276$ who has small bandages on
- NOTE Confidence: 0.85033584
- $00:25:38.276 \longrightarrow 00:25:39.674$ small keyhole incisions.
- NOTE Confidence: 0.85033584
- $00:25:39.680 \longrightarrow 00:25:41.081$ If you will,
- NOTE Confidence: 0.85033584
- $00:25:41.081 \rightarrow 00:25:43.416$ which could represent laparoscopic surgery.
- NOTE Confidence: 0.85033584
- $00:25:43.420 \longrightarrow 00:25:44.450$ Quite frankly,
- NOTE Confidence: 0.85033584
- $00{:}25{:}44{.}450 \dashrightarrow 00{:}25{:}47{.}025$ it could also represent laparoscopic
- NOTE Confidence: 0.85033584
- $00{:}25{:}47.025 \dashrightarrow 00{:}25{:}50.038$ surgery the the what's done for
- NOTE Confidence: 0.85033584
- $00:25:50.038 \rightarrow 00:25:52.343$ for both laparoscopic and robotic
- NOTE Confidence: 0.85033584
- $00:25:52.343 \longrightarrow 00:25:54.982$ surgery is that air is placed
- NOTE Confidence: 0.85033584
- $00{:}25{:}54{.}982 \dashrightarrow 00{:}25{:}57{.}430$ inside the abdomen so that there's
- NOTE Confidence: 0.85033584
- $00{:}25{:}57{.}430 \dashrightarrow 00{:}25{:}59{.}734$ a greater working volume and then
- NOTE Confidence: 0.85033584
- 00:25:59.734 --> 00:26:03.030 in the case of laparoscopic surgery,
- NOTE Confidence: 0.85033584
- $00:26:03.030 \rightarrow 00:26:04.950$ long skinny instruments that

- NOTE Confidence: 0.85033584
- $00:26:04.950 \longrightarrow 00:26:06.390$ are like chopsticks.

 $00:26:06.390 \rightarrow 00:26:10.548$ Are used to manipulate the tissues,

NOTE Confidence: 0.85033584

 $00:26:10.550 \rightarrow 00:26:16.878$ eventually leading to the removal of the.

NOTE Confidence: 0.85033584

 $00{:}26{:}16.880 \dashrightarrow 00{:}26{:}20.552$ Piece of intestine that has cancer in it

NOTE Confidence: 0.85033584

 $00{:}26{:}20.552 \dashrightarrow 00{:}26{:}24.540$ and the reattachment of the intestines.

NOTE Confidence: 0.85033584

00:26:24.540 --> 00:26:25.064 Finally,

NOTE Confidence: 0.85033584

 $00:26:25.064 \rightarrow 00:26:29.256$ over here on the right is what robotic

NOTE Confidence: 0.85033584

00:26:29.256 --> 00:26:32.740 surgery looks like in robotic surgery.

NOTE Confidence: 0.85033584

 $00{:}26{:}32.740 \dashrightarrow 00{:}26{:}37.420$ The surgeon sits at the console and through

NOTE Confidence: 0.85033584

 $00:26:37.420 \longrightarrow 00:26:40.947$ the movements of his or her fingers,

NOTE Confidence: 0.85033584

 $00:26:40.950 \longrightarrow 00:26:44.214$ controls the movements of the robotic

NOTE Confidence: 0.85033584

 $00{:}26{:}44{.}214 \dashrightarrow 00{:}26{:}47{.}749$ arms of robot that is executing.

NOTE Confidence: 0.85033584

 $00:26:47.750 \rightarrow 00:26:50.746$ The surgeons motions to perform the surgery.

NOTE Confidence: 0.85033584

 $00{:}26{:}50{.}750 \dashrightarrow 00{:}26{:}54{.}257$ That also is a minimally invasive type

NOTE Confidence: 0.85033584

 $00:26:54.257 \rightarrow 00:26:57.564$ surgery where the scars might look

 $00:26:57.564 \rightarrow 00:27:00.414$ something like the middle diagram.

NOTE Confidence: 0.85033584

 $00:27:00.420 \longrightarrow 00:27:03.100$ Regardless of how which modality

NOTE Confidence: 0.85033584

 $00:27:03.100 \longrightarrow 00:27:05.244$ of surgery is chosen,

NOTE Confidence: 0.85033584

 $00{:}27{:}05{.}250 \dashrightarrow 00{:}27{:}08{.}478$ the principles are the same number.

NOTE Confidence: 0.85033584

 $00{:}27{:}08{.}480 \dashrightarrow 00{:}27{:}12{.}320$ One complete removal of the cancer.

NOTE Confidence: 0.85033584

00:27:12.320 --> 00:27:15.038 #2 the lymph nodes as well.

NOTE Confidence: 0.85033584

00:27:15.040 --> 00:27:17.300 OK, what are lymph nodes?

NOTE Confidence: 0.85033584

00:27:17.300 --> 00:27:20.924 Lymph nodes are part of our immune system.

NOTE Confidence: 0.85033584

 $00{:}27{:}20{.}930 \dashrightarrow 00{:}27{:}23{.}190$ They help us fight infections.

NOTE Confidence: 0.85033584

00:27:23.190 - 00:27:25.860 They also screen abnormal cells

NOTE Confidence: 0.85033584

 $00:27:25.860 \longrightarrow 00:27:29.140$ such as cancer in our body.

NOTE Confidence: 0.85033584

 $00:27:29.140 \longrightarrow 00:27:31.858$ Call for colon and rectal cancer.

NOTE Confidence: 0.85396594

 $00:27:31.860 \longrightarrow 00:27:33.580$ Like for other cancers,

NOTE Confidence: 0.85396594

 $00:27:33.580 \longrightarrow 00:27:35.730$ usually one would expect that

NOTE Confidence: 0.85396594

 $00{:}27{:}35{.}730 \dashrightarrow 00{:}27{:}38{.}137$ before a cancer metastasizes to

NOTE Confidence: 0.85396594

 $00:27:38.137 \rightarrow 00:27:40.037$ different to distant organs,

- NOTE Confidence: 0.85396594
- $00:27:40.040 \longrightarrow 00:27:42.470$ it often at most often will

 $00:27:42.470 \longrightarrow 00:27:45.195$ spread into lymph nodes which live

NOTE Confidence: 0.85396594

00:27:45.195 - 00:27:47.750 immediately adjacent to the colon.

NOTE Confidence: 0.85396594

 $00:27:47.750 \longrightarrow 00:27:50.654$ So as part of it as part of

NOTE Confidence: 0.85396594

00:27:50.654 --> 00:27:53.200 a proper cancer operation,

NOTE Confidence: 0.85396594

 $00:27:53.200 \rightarrow 00:27:55.930$ when the intestine itself is removed,

NOTE Confidence: 0.85396594

 $00:27:55.930 \rightarrow 00:28:00.097$ the lymph nodes also are in order to remove.

NOTE Confidence: 0.85396594

00:28:00.100 --> 00:28:02.430 All potential sites where the

NOTE Confidence: 0.85396594

 $00:28:02.430 \longrightarrow 00:28:04.760$ colon cancer may have spread

NOTE Confidence: 0.85396594

 $00{:}28{:}04{.}844 \dashrightarrow 00{:}28{:}07{.}496$ locali and then after the removal

NOTE Confidence: 0.85396594

 $00:28:07.496 \longrightarrow 00:28:10.070$ of the affected piece of colon,

NOTE Confidence: 0.85396594

 $00{:}28{:}10.070 \dashrightarrow 00{:}28{:}12.138$ the intestines are reconnected.

NOTE Confidence: 0.85396594

 $00{:}28{:}12{.}138 \dashrightarrow 00{:}28{:}15{.}240$ This diagram here shows that the

NOTE Confidence: 0.85396594

 $00{:}28{:}15{.}328 \dashrightarrow 00{:}28{:}18{.}496$ blue portion of colon is the part to

NOTE Confidence: 0.85396594

 $00{:}28{:}18.496 \dashrightarrow 00{:}28{:}21.513$ be respected and you can notice in NOTE Confidence: 0.85396594

 $00:28:21.513 \rightarrow 00:28:24.193$ the diagram immediately next to it.

NOTE Confidence: 0.85396594

 $00{:}28{:}24.193 \dashrightarrow 00{:}28{:}26.858$ The small intestine has now

NOTE Confidence: 0.85396594

 $00{:}28{:}26.858 \dashrightarrow 00{:}28{:}29.670$ been reconnected to the colon.

NOTE Confidence: 0.85396594

00:28:29.670 -> 00:28:32.040 What can a surgery patient expect?

NOTE Confidence: 0.85396594

00:28:32.040 --> 00:28:35.316 There will be pain for a couple of days

NOTE Confidence: 0.85396594

 $00{:}28{:}35{.}316$ --> $00{:}28{:}38{.}359$ after surgery beyond a couple of days. NOTE Confidence: 0.85396594

 $00:28:38.360 \longrightarrow 00:28:40.335$ Most patients describe that they're

NOTE Confidence: 0.85396594

00:28:40.335 - > 00:28:41.915 uncomfortable more than that,

NOTE Confidence: 0.85396594

 $00{:}28{:}41{.}920 \dashrightarrow 00{:}28{:}44{.}678$ they truly are in grimacing type pain.

NOTE Confidence: 0.85396594

 $00:28:44.680 \longrightarrow 00:28:47.370$ Most patients will resume a

NOTE Confidence: 0.85396594

 $00:28:47.370 \longrightarrow 00:28:51.010$ normal diet in a couple of days.

NOTE Confidence: 0.85396594

00:28:51.010 --> 00:28:52.156 Fatigue lingers longer.

NOTE Confidence: 0.85396594

00:28:52.156 --> 00:28:54.066 It is weeks before people

NOTE Confidence: 0.85396594

 $00:28:54.066 \longrightarrow 00:28:56.108$ feel their full strength back.

NOTE Confidence: 0.85396594

 $00:28:56.110 \longrightarrow 00:28:58.180$ One of the biggest determinants

NOTE Confidence: 0.85396594

00:28:58.180 --> 00:29:01.405 of of what is your time course of

- NOTE Confidence: 0.85396594
- $00:29:01.405 \rightarrow 00:29:04.730$ surgery going to be is is your age?

00:29:04.730 $\operatorname{-->}$ 00:29:08.209 OK it's it's a quicker recovery the

NOTE Confidence: 0.85396594

 $00:29:08.209 \rightarrow 00:29:12.086$ younger that you are and it takes longer.

NOTE Confidence: 0.85396594

 $00:29:12.090 \rightarrow 00:29:16.206$ Sikaran, the older that the patient is.

NOTE Confidence: 0.85396594

 $00:29:16.210 \longrightarrow 00:29:18.304$ What can a patient expect in

NOTE Confidence: 0.85396594

 $00:29:18.304 \rightarrow 00:29:19.700$ terms of their bowels?

NOTE Confidence: 0.85396594

 $00:29:19.700 \longrightarrow 00:29:21.728$ I will say that rectal cancer

NOTE Confidence: 0.85396594

 $00:29:21.728 \longrightarrow 00:29:23.495$ treatment affects bowel habits more

NOTE Confidence: 0.85396594

 $00{:}29{:}23.495 \dashrightarrow 00{:}29{:}25.280$ than colon cancer treatment does.

NOTE Confidence: 0.85396594

 $00:29:25.280 \longrightarrow 00:29:27.188$ That's because the ****** is the

NOTE Confidence: 0.85396594

 $00:29:27.188 \longrightarrow 00:29:29.470$ lowest portion of our large intestine.

NOTE Confidence: 0.85396594

00:29:29.470 --> 00:29:32.529 It's where the storage of the waste

NOTE Confidence: 0.85396594

 $00{:}29{:}32{.}529 \dashrightarrow 00{:}29{:}34{.}880$ happens before it's illuminated.

NOTE Confidence: 0.85396594

 $00{:}29{:}34.880 \dashrightarrow 00{:}29{:}37.262$ So the elimination and the ultimate

NOTE Confidence: 0.85396594

 $00:29:37.262 \longrightarrow 00:29:39.792$ storage of our waste is more

 $00:29:39.792 \rightarrow 00:29:41.957$ affected by rectal cancer treatment

NOTE Confidence: 0.85396594

 $00{:}29{:}41{.}957 \dashrightarrow 00{:}29{:}44{.}249$ then colon cancer treatment is,

NOTE Confidence: 0.85396594

 $00{:}29{:}44.250 \dashrightarrow 00{:}29{:}46.275$ and so rectal cancer patients

NOTE Confidence: 0.85396594

 $00{:}29{:}46{.}275 \dashrightarrow 00{:}29{:}48{.}300$ will have more alterations to

NOTE Confidence: 0.85396594

 $00:29:48.373 \rightarrow 00:29:50.638$ their bowel function and surgery.

NOTE Confidence: 0.85396594

 $00{:}29{:}50{.}640 \dashrightarrow 00{:}29{:}52{.}344$ Patients will be nervous.

NOTE Confidence: 0.85396594

 $00:29:52.344 \longrightarrow 00:29:53.196$ That's normal.

NOTE Confidence: 0.85396594

00:29:53.200 --> 00:29:56.344 That's one of my job or any physicians

NOTE Confidence: 0.85396594

 $00{:}29{:}56{.}344 \dashrightarrow 00{:}30{:}00{.}286$ job is to manage the psychosocial part of.

NOTE Confidence: 0.85396594

00:30:00.290 --> 00:30:01.072 A patient,

NOTE Confidence: 0.85396594

 $00{:}30{:}01{.}072 \dashrightarrow 00{:}30{:}04{.}200$ I will say that across the board the

NOTE Confidence: 0.85396594

00:30:04.290 --> 00:30:07.188 most nervous part of for patients

NOTE Confidence: 0.85396594

 $00:30:07.188 \longrightarrow 00:30:10.039$ is waiting for treatment to happen.

NOTE Confidence: 0.85396594

00:30:10.040 --> 00:30:12.992 It's waiting for surgery to come

NOTE Confidence: 0.85396594

 $00:30:12.992 \rightarrow 00:30:15.790$ and then once surgery happens.

NOTE Confidence: 0.85396594

 $00:30:15.790 \rightarrow 00:30:17.670$ They though they have pain,

- NOTE Confidence: 0.85396594
- $00:30:17.670 \longrightarrow 00:30:19.395$ and though they're not probably
- NOTE Confidence: 0.85396594
- $00{:}30{:}19{.}395 \dashrightarrow 00{:}30{:}21{.}790$ pleased to be in the hospital,
- NOTE Confidence: 0.85396594
- $00:30:21.790 \longrightarrow 00:30:24.128$ they are nowhere near as sort of
- NOTE Confidence: 0.85396594
- $00:30:24.128 \rightarrow 00:30:26.499$ anxious as they are when they're
- NOTE Confidence: 0.85396594
- 00:30:26.499 --> 00:30:29.090 waiting for surgery. What's new in surgery?
- NOTE Confidence: 0.85396594
- $00{:}30{:}29{.}090 \dashrightarrow 00{:}30{:}31{.}040$ Three things that I'll point out
- NOTE Confidence: 0.85396594
- 00:30:31.106 --> 00:30:32.290 simplified recovery.
- NOTE Confidence: 0.85396594
- $00:30:32.290 \longrightarrow 00:30:34.210$ We're trying to shorten the length
- NOTE Confidence: 0.85396594
- $00:30:34.210 \longrightarrow 00:30:36.845$ of stay in the hospital by managing
- NOTE Confidence: 0.85396594
- $00:30:36.845 \rightarrow 00:30:39.413$ pain with with less narcotic medicine,
- NOTE Confidence: 0.85396594
- $00{:}30{:}39{.}420 \dashrightarrow 00{:}30{:}42.052$ trying to get balls to work more
- NOTE Confidence: 0.85396594
- $00{:}30{:}42.052 \dashrightarrow 00{:}30{:}44.703$ quickly so that patients can return
- NOTE Confidence: 0.85396594
- $00{:}30{:}44{.}703 \dashrightarrow 00{:}30{:}46{.}627$ to their lives quicker.
- NOTE Confidence: 0.85396594
- $00{:}30{:}46.630 \dashrightarrow 00{:}30{:}48.940$ Certainly technology things such as
- NOTE Confidence: 0.85396594
- $00{:}30{:}48{.}940 \dashrightarrow 00{:}30{:}51{.}851$ as robotic surgery have have changed
- NOTE Confidence: 0.85396594

00:30:51.851 -> 00:30:56.870 the landscape, and as I touched on.

NOTE Confidence: 0.85396594

 $00{:}30{:}56.870 \dashrightarrow 00{:}30{:}58.860$ For rectal cancer in particular,

NOTE Confidence: 0.85396594

 $00{:}30{:}58{.}860 \dashrightarrow 00{:}31{:}00{.}448$ the treatment paradigm is

NOTE Confidence: 0.85396594

 $00:31:00.448 \longrightarrow 00:31:02.036$ changing all the time,

NOTE Confidence: 0.85396594

 $00:31:02.040 \longrightarrow 00:31:04.428$ and where surgery used to be.

NOTE Confidence: 0.85396594

 $00{:}31{:}04{.}430 \dashrightarrow 00{:}31{:}06{.}420$ Arguably the mainstay of treatment,

NOTE Confidence: 0.85396594

00:31:06.420 -> 00:31:10.400 it is now it is a portion of the treatment,

NOTE Confidence: 0.8607669

 $00:31:10.400 \dashrightarrow 00:31:12.788$ and it sometimes not even needed.

NOTE Confidence: 0.8607669

00:31:12.790 --> 00:31:15.974 Thank you for your time, and I'll answer

NOTE Confidence: 0.8607669

 $00{:}31{:}15{.}974 \dashrightarrow 00{:}31{:}18{.}760$ questions with the rest of the group.

NOTE Confidence: 0.8657848

 $00:31:21.020 \dashrightarrow 00:31:23.756$ Thank you so much Peter. That was great.

NOTE Confidence: 0.8657848

 $00{:}31{:}23.756 \dashrightarrow 00{:}31{:}26.326$ So we will move on next to Doctor

NOTE Confidence: 0.8657848

 $00{:}31{:}26{.}326$ --> $00{:}31{:}29{.}374$ Lee who will talk with us some about

NOTE Confidence: 0.8657848

 $00:31:29.374 \rightarrow 00:31:32.007$ treatment before and after surgery. These.

NOTE Confidence: 0.8657848

00:31:32.007 --> 00:31:34.269 Names are adam
ant and knew argument

NOTE Confidence: 0.8657848

 $00:31:34.269 \longrightarrow 00:31:36.748$ in fact still describe that some.

- NOTE Confidence: 0.8183713
- 00:31:40.310 --> 00:31:42.056 Doctor Lee, you're on mute still.

00:31:54.140 --> 00:31:57.114 OK. Sorry about my sorry bout

NOTE Confidence: 0.79588491

 $00:31:57.114 \rightarrow 00:31:58.137$ my technical difficulties.

NOTE Confidence: 0.78088886

00:31:58.140 --> 00:32:00.460 So my name is only I am one of the

NOTE Confidence: 0.78088886

 $00{:}32{:}00{.}528 \dashrightarrow 00{:}32{:}02{.}438$ medical on cologist in Greenwich so

NOTE Confidence: 0.78088886

 $00:32:02.438 \longrightarrow 00:32:05.254$ I will be speaking to you about

NOTE Confidence: 0.78088886

00:32:05.254 --> 00:32:07.349 Azure Vintan Neways even therapy.

NOTE Confidence: 0.78088886

 $00:32:07.350 \longrightarrow 00:32:09.920$ So what does that mean? So now.

NOTE Confidence: 0.78088886

 $00{:}32{:}09{.}920 \dashrightarrow 00{:}32{:}12{.}847$ A surgeon has well against Mr. Hodges.

NOTE Confidence: 0.78088886

 $00{:}32{:}12.847 \dashrightarrow 00{:}32{:}14.749$ Lester has diagnosed with colon cancer.

NOTE Confidence: 0.78088886

 $00{:}32{:}14.750 \dashrightarrow 00{:}32{:}16.340$ You have senior surgeon and

NOTE Confidence: 0.78088886

 $00{:}32{:}16{.}340 \dashrightarrow 00{:}32{:}17{.}930$ you've had the curative surgery.

NOTE Confidence: 0.78088886

 $00:32:17.930 \longrightarrow 00:32:19.520$ So what do we get?

NOTE Confidence: 0.78088886

 $00:32:19.520 \longrightarrow 00:32:21.210$ After the curious surgery we

NOTE Confidence: 0.78088886

 $00{:}32{:}21{.}210 \dashrightarrow 00{:}32{:}22{.}562$ get something called Pathologic

00:32:22.562 --> 00:32:24.286 Stage and I talked to Mcwhorter,

NOTE Confidence: 0.78088886

 $00{:}32{:}24.290 \dashrightarrow 00{:}32{:}26.198$ has spoken to you about staging.

NOTE Confidence: 0.78088886

 $00{:}32{:}26{.}200 \dashrightarrow 00{:}32{:}27{.}766$ Now there are two different type

NOTE Confidence: 0.78088886

00:32:27.766 --> 00:32:29.930 of stage and that's what we called

NOTE Confidence: 0.78088886

 $00{:}32{:}29{.}930 \dashrightarrow 00{:}32{:}31{.}354$ clinical staging and there's

NOTE Confidence: 0.78088886

 $00:32:31.354 \dashrightarrow 00:32:32.880$ something called pathologic staging.

NOTE Confidence: 0.78088886

 $00:32:32.880 \longrightarrow 00:32:34.788$ For those of you don't know,

NOTE Confidence: 0.78088886

 $00:32:34.790 \longrightarrow 00:32:36.485$ stating just simply means how

NOTE Confidence: 0.78088886

00:32:36.485 --> 00:32:38.529 advance is how advanced was the

NOTE Confidence: 0.78088886

00:32:38.529 --> 00:32:40.510 cancer at the time of the surgery,

NOTE Confidence: 0.78088886

 $00:32:40.510 \longrightarrow 00:32:41.270$ generally speaking.

NOTE Confidence: 0.78088886

00:32:41.270 --> 00:32:43.550 Stage one and stage two cancers

NOTE Confidence: 0.78088886

00:32:43.550 --> 00:32:45.898 are what we call limited disease,

NOTE Confidence: 0.78088886

 $00{:}32{:}45{.}900 \dashrightarrow 00{:}32{:}48{.}186$ meaning that the cancer has been

NOTE Confidence: 0.78088886

00:32:48.186 --> 00:32:50.111 discovered to be contained within

NOTE Confidence: 0.78088886

00:32:50.111 - > 00:32:52.791 the walls of the walls of the large

- NOTE Confidence: 0.78088886
- $00:32:52.791 \rightarrow 00:32:54.409$ intestine stage three diseases

 $00:32:54.409 \rightarrow 00:32:56.424$ in localized disease that is,

NOTE Confidence: 0.78088886

 $00{:}32{:}56{.}430 \dashrightarrow 00{:}32{:}58{.}747$ the cancer that has spread into one

NOTE Confidence: 0.78088886

 $00:32:58.747 \rightarrow 00:33:01.689$ or more of the adjacent lymph glands.

NOTE Confidence: 0.78088886

 $00:33:01.690 \rightarrow 00:33:03.570$ And, as you probably know,

NOTE Confidence: 0.78088886

 $00{:}33{:}03{.}570 \dashrightarrow 00{:}33{:}06{.}167$ Stage 4 means that the cancer has

NOTE Confidence: 0.78088886

 $00:33:06.167 \dashrightarrow 00:33:08.520$ spread to distant organs under the

NOTE Confidence: 0.78088886

 $00:33:08.520 \dashrightarrow 00:33:11.810$ terms that we will use is metastatic cancer.

NOTE Confidence: 0.78088886

 $00:33:11.810 \longrightarrow 00:33:14.540$ So I have to do surgeries done.

NOTE Confidence: 0.78088886

 $00:33:14.540 \longrightarrow 00:33:16.680$ The pathologist will assess what

NOTE Confidence: 0.78088886

 $00{:}33{:}16.680 \dashrightarrow 00{:}33{:}19.853$ was taken out and provide us the

NOTE Confidence: 0.78088886

 $00{:}33{:}19.853 \dashrightarrow 00{:}33{:}22.228$ clinician with the pathologic staging.

NOTE Confidence: 0.78088886

 $00:33:22.230 \rightarrow 00:33:23.766$ Why do we care?

NOTE Confidence: 0.78088886

00:33:23.766 --> 00:33:24.150 Well,

NOTE Confidence: 0.78088886

 $00{:}33{:}24.150 \dashrightarrow 00{:}33{:}26.586$ this is what we call the five

00:33:26.586 --> 00:33:28.370 year disease Free Survival,

NOTE Confidence: 0.78088886

 $00{:}33{:}28{.}370 \dashrightarrow 00{:}33{:}31{.}298$ a meaning that at the within the five

NOTE Confidence: 0.78088886

 $00:33:31.298 \rightarrow 00:33:34.130$ years after they have cured of surgery,

NOTE Confidence: 0.78088886

 $00:33:34.130 \longrightarrow 00:33:36.434$ what is the chance that the

NOTE Confidence: 0.78088886

 $00:33:36.434 \longrightarrow 00:33:37.970$ cancer will have recurrent?

NOTE Confidence: 0.78088886

 $00{:}33{:}37{.}970 \dashrightarrow 00{:}33{:}41{.}050$ So if a person has stage one cancer,

NOTE Confidence: 0.78088886

 $00:33:41.050 \longrightarrow 00:33:43.720$ then the probability of the cancelled

NOTE Confidence: 0.78088886

 $00:33:43.720 \longrightarrow 00:33:46.837$ not requiring in the in the in the

NOTE Confidence: 0.78088886

 $00:33:46.837 \longrightarrow 00:33:49.121$ next five years is 30 high, 90%?

NOTE Confidence: 0.78088886

 $00:33:49.121 \rightarrow 00:33:51.858$ That's pretty good for stage two is.

NOTE Confidence: 0.78088886

00:33:51.860 --> 00:33:53.540 Equally well, maybe not equally,

NOTE Confidence: 0.78088886

00:33:53.540 - 00:33:55.308 but it's still excellent,

NOTE Confidence: 0.78088886

 $00:33:55.308 \longrightarrow 00:33:56.634$ say about 80%.

NOTE Confidence: 0.78088886

 $00:33:56.640 \rightarrow 00:33:59.286$ The problem is stage three disease where

NOTE Confidence: 0.78088886

 $00:33:59.286 \longrightarrow 00:34:01.278$ disease free survival is about 50%.

NOTE Confidence: 0.78088886

 $00:34:01.280 \rightarrow 00:34:03.536$ So another way of putting it is that

 $00:34:03.536 \rightarrow 00:34:06.451$ if a person has had a presumed curative

NOTE Confidence: 0.78088886

 $00{:}34{:}06{.}451 \dashrightarrow 00{:}34{:}08{.}849$ surgery and you have stage three

NOTE Confidence: 0.78088886

 $00:34:08.849 \rightarrow 00:34:11.279$ disease within the next five years,

NOTE Confidence: 0.78088886

 $00:34:11.280 \longrightarrow 00:34:13.884$ there's a 50% chance that the cancer

NOTE Confidence: 0.78088886

 $00:34:13.884 \rightarrow 00:34:17.137$ may may be discovered to have return.

NOTE Confidence: 0.78088886

 $00:34:17.140 \longrightarrow 00:34:19.576$ So what can we do about that?

NOTE Confidence: 0.78088886

 $00{:}34{:}19{.}580 \dashrightarrow 00{:}34{:}22{.}051$ Is there something we can do to

NOTE Confidence: 0.78088886

 $00{:}34{:}22.051 \dashrightarrow 00{:}34{:}24.182$ reduce that likelihood and that is

NOTE Confidence: 0.78088886

 $00{:}34{:}24.182 \dashrightarrow 00{:}34{:}26.186$ where agile and the rapies come in,

NOTE Confidence: 0.78088886

 $00:34:26.190 \dashrightarrow 00:34:28.619$ so adam ant therapy, as the name implies,

NOTE Confidence: 0.78088886

 $00{:}34{:}28.620 \dashrightarrow 00{:}34{:}30.666$ means a treatment that we give

NOTE Confidence: 0.78088886

 $00{:}34{:}30{.}666 \dashrightarrow 00{:}34{:}32{.}799$ to help a person's cure rate.

NOTE Confidence: 0.78088886

 $00:34:32.800 \dashrightarrow 00:34:36.896$ So to reduce the chance of a relapse.

NOTE Confidence: 0.78088886

 $00{:}34{:}36{.}900 \dashrightarrow 00{:}34{:}39{.}860$ In case of colon cancer that the the

NOTE Confidence: 0.78088886

 $00:34:39.860 \rightarrow 00:34:42.706$ advent therapy that we use is chemotherapy.

 $00:34:42.710 \longrightarrow 00:34:44.230$ So what is chemotherapy,

NOTE Confidence: 0.78088886

 $00:34:44.230 \longrightarrow 00:34:46.130$ chemotherapy or any and all

NOTE Confidence: 0.78088886

 $00{:}34{:}46{.}130 \dashrightarrow 00{:}34{:}48{.}118$ medications that destroy cancer cells?

NOTE Confidence: 0.78088886

 $00{:}34{:}48{.}120 \dashrightarrow 00{:}34{:}50{.}712$ And I think Doctor Boyle probably

NOTE Confidence: 0.78088886

 $00{:}34{:}50{.}712 \dashrightarrow 00{:}34{:}53{.}640$ going to more detail about different

NOTE Confidence: 0.78088886

 $00{:}34{:}53{.}640 \dashrightarrow 00{:}34{:}55{.}880$ forms of chemotherapy now.

NOTE Confidence: 0.78088886

 $00{:}34{:}55{.}880 \dashrightarrow 00{:}34{:}58{.}548$ Large chemotherapy often target

NOTE Confidence: 0.78088886

 $00:34:58.548 \rightarrow 00:35:00.549$ rapidly growing cells.

NOTE Confidence: 0.78088886

 $00{:}35{:}00{.}550 \dashrightarrow 00{:}35{:}02{.}585$ They are typically given either

NOTE Confidence: 0.78088886

 $00{:}35{:}02{.}585 \dashrightarrow 00{:}35{:}04{.}620$ intravenously or you take it

NOTE Confidence: 0.78088886

 $00:35:04.690 \longrightarrow 00:35:05.980$ as a pill by mouth,

NOTE Confidence: 0.78088886

 $00{:}35{:}05{.}980 \dashrightarrow 00{:}35{:}07{.}820$ and as such there affect

NOTE Confidence: 0.78088886

 $00{:}35{:}07{.}820 \dashrightarrow 00{:}35{:}09{.}660$ our systemic for both good

NOTE Confidence: 0.84554595

 $00:35:09.741 \longrightarrow 00:35:12.130$ and bad. And when I'm by that,

NOTE Confidence: 0.84554595

 $00{:}35{:}12.130 \dashrightarrow 00{:}35{:}15.010$ what I mean is that unlike surgery or

NOTE Confidence: 0.84554595

 $00:35:15.010 \rightarrow 00:35:16.867$ radiation therapy that are targeted

 $00:35:16.867 \rightarrow 00:35:19.003$ to particular part of the body,

NOTE Confidence: 0.84554595

 $00:35:19.010 \rightarrow 00:35:21.150$ chemotherapy affects the entire body

NOTE Confidence: 0.84554595

 $00:35:21.150 \longrightarrow 00:35:24.580$ and therefore if a person were to have NOTE Confidence: 0.84554595

00:35:24.580 --> 00:35:27.022 adverse effects than the adverse affect NOTE Confidence: 0.84554595

 $00:35:27.022 \rightarrow 00:35:29.636$ entire affect our entire body as well.

NOTE Confidence: 0.84554595

 $00:35:29.640 \rightarrow 00:35:32.203$ So who gets argument therapy? What?

NOTE Confidence: 0.84554595

00:35:32.203 - > 00:35:34.981 What are the different types of

NOTE Confidence: 0.84554595

00:35:34.981 - 00:35:37.617 treatment and when do you get it?

NOTE Confidence: 0.84554595

 $00:35:37.620 \longrightarrow 00:35:40.940$ So as shown earlier?

NOTE Confidence: 0.84554595

 $00{:}35{:}40{.}940 \dashrightarrow 00{:}35{:}43{.}106$ Stage 3 colon cancer patients have

NOTE Confidence: 0.84554595

 $00{:}35{:}43.106 \dashrightarrow 00{:}35{:}46.038$ a high risk of recurrence and they

NOTE Confidence: 0.84554595

 $00{:}35{:}46.038 \dashrightarrow 00{:}35{:}48.388$ are again technical count ones.

NOTE Confidence: 0.84554595

 $00{:}35{:}48{.}390 \dashrightarrow 00{:}35{:}50{.}460$ Overall health are often advised

NOTE Confidence: 0.84554595

 $00{:}35{:}50{.}460 \dashrightarrow 00{:}35{:}52{.}116$ to receive adjutant chemotherapy.

NOTE Confidence: 0.84554595

00:35:52.120 --> 00:35:54.598 Now, besides giving us a clinical,

 $00{:}35{:}54{.}600 \dashrightarrow 00{:}35{:}57{.}135$ staging pathologist can also provide

NOTE Confidence: 0.84554595

 $00{:}35{:}57{.}135 \dashrightarrow 00{:}35{:}59{.}163$ additional information in the

NOTE Confidence: 0.84554595

00:35:59.163 --> 00:36:01.457 information that will give us ideas NOTE Confidence: 0.84554595

 $00{:}36{:}01{.}457 \dashrightarrow 00{:}36{:}03{.}625$ to whether a certain patients with NOTE Confidence: 0.84554595

00:36:03.625 --> 00:36:05.510 stage two cancer's actually have

NOTE Confidence: 0.84554595

00:36:05.510 --> 00:36:08.403 high risk of relapse and in select NOTE Confidence: 0.84554595

 $00:36:08.403 \dashrightarrow 00:36:10.708$ patients with high risk features.

NOTE Confidence: 0.84554595

 $00{:}36{:}10.710 \dashrightarrow 00{:}36{:}13.062$ We also can't cancel them and

NOTE Confidence: 0.84554595

 $00{:}36{:}13.062 \dashrightarrow 00{:}36{:}15.157$ sometimes advise them to receive NOTE Confidence: 0.84554595

00:36:15.157 --> 00:36:17.397 as even chemotherapy as well.

NOTE Confidence: 0.84554595

 $00{:}36{:}17{.}400 \dashrightarrow 00{:}36{:}20{.}020$ The three most commonly used

NOTE Confidence: 0.84554595

00:36:20.020 -> 00:36:23.030 as you can chemotherapy R5 FU,

NOTE Confidence: 0.84554595

00:36:23.030 --> 00:36:24.425 Xeloda an oxaliplatin,

NOTE Confidence: 0.84554595

 $00{:}36{:}24.425 \dashrightarrow 00{:}36{:}26.750$ and these medications are often

NOTE Confidence: 0.84554595

 $00{:}36{:}26.750 \dashrightarrow 00{:}36{:}28.660$ used in combination,

NOTE Confidence: 0.84554595

 $00:36:28.660 \rightarrow 00:36:33.175$ giving us a regiment of and going

- NOTE Confidence: 0.84554595
- 00:36:33.175 --> 00:36:37.808 by the acronym of FOLFOX or K Box.

00:36:37.810 --> 00:36:40.610 When do we start the as you can

NOTE Confidence: 0.84554595

 $00:36:40.610 \rightarrow 00:36:42.809$ chemotherapy well as soon as possible.

NOTE Confidence: 0.84554595

 $00:36:42.810 \longrightarrow 00:36:44.952$ Soon as a person has recovered

NOTE Confidence: 0.84554595

 $00:36:44.952 \longrightarrow 00:36:46.380$ at recovered and healed.

NOTE Confidence: 0.84554595

 $00{:}36{:}46{.}380 \dashrightarrow 00{:}36{:}47{.}824$ Actually from the surgery,

NOTE Confidence: 0.84554595

 $00:36:47.824 \longrightarrow 00:36:49.629$ there are some data indicating

NOTE Confidence: 0.84554595

 $00{:}36{:}49{.}629 \dashrightarrow 00{:}36{:}51{.}293$ that delaying the adjutant the rapy

NOTE Confidence: 0.84554595

00:36:51.293 - 00:36:54.025 beyond 6 to 8 weeks may render the

NOTE Confidence: 0.84554595

00:36:54.025 --> 00:36:55.657 Angevin therapy less effective,

NOTE Confidence: 0.84554595

 $00:36:55.660 \rightarrow 00:36:58.459$ so we do want to get going on the

NOTE Confidence: 0.84554595

 $00{:}36{:}58{.}459 \dashrightarrow 00{:}37{:}00{.}660$ treatment sooner rather than later.

NOTE Confidence: 0.7670193

 $00:37:03.090 \rightarrow 00:37:05.166$ So what is new regimen therapy?

NOTE Confidence: 0.7670193

 $00{:}37{:}05{.}170 \dashrightarrow 00{:}37{:}06{.}900$ Sort of Columbus in Word.

NOTE Confidence: 0.7670193

 $00:37:06.900 \rightarrow 00:37:09.315$ And you know, from a linguistic perspective,

 $00:37:09.320 \rightarrow 00:37:12.088$ it doesn't really make a lot of sense,

NOTE Confidence: 0.7670193

00:37:12.090 --> 00:37:13.820 but knew as you can.

NOTE Confidence: 0.7670193

 $00:37:13.820 \longrightarrow 00:37:15.806$ Therapy are are treatments that are

NOTE Confidence: 0.7670193

 $00:37:15.806 \rightarrow 00:37:17.620$ given before the curative surgery.

NOTE Confidence: 0.7670193

00:37:17.620 --> 00:37:19.696 It is often give we radiation,

NOTE Confidence: 0.7670193

00:37:19.700 -> 00:37:21.430 but near as even chemotherapy

NOTE Confidence: 0.7670193

 $00:37:21.430 \longrightarrow 00:37:23.160$ can be given by itself.

NOTE Confidence: 0.7670193

00:37:23.160 - 00:37:25.230 The purpose of the new regimen,

NOTE Confidence: 0.7670193

 $00{:}37{:}25{.}230 \dashrightarrow 00{:}37{:}27{.}998$ the rapy or similar to the Azure and the rapy,

NOTE Confidence: 0.7670193

00:37:28.000 - 00:37:31.745 that is to say that we want to, we will we.

NOTE Confidence: 0.7670193

 $00:37:31.745 \longrightarrow 00:37:33.695$ Give a treatment in hope of

NOTE Confidence: 0.7670193

 $00{:}37{:}33.695 \dashrightarrow 00{:}37{:}35.449$ reducing the recurrence rate.

NOTE Confidence: 0.7670193

 $00{:}37{:}35{.}450 \dashrightarrow 00{:}37{:}38{.}558$ It is often used in rectal cancer

NOTE Confidence: 0.7670193

 $00:37:38.558 \dashrightarrow 00:37:41.259$ zanin select colon cancer as well.

NOTE Confidence: 0.7670193

 $00{:}37{:}41.260 \dashrightarrow 00{:}37{:}43.192$ Doctor Mc
whorter has done a wonderful

NOTE Confidence: 0.7670193

 $00:37:43.192 \rightarrow 00:37:45.275$ job describing to you the difference

- NOTE Confidence: 0.7670193
- $00:37:45.275 \rightarrow 00:37:47.483$ between rectal cancer and colon cancer.

 $00:37:47.490 \longrightarrow 00:37:49.220$ So as he had indicated,

NOTE Confidence: 0.7670193

 $00:37:49.220 \rightarrow 00:37:51.988$ when a person is diagnosed with very early,

NOTE Confidence: 0.7670193

 $00:37:51.990 \rightarrow 00:37:54.750$ that is to say, stage one rectal cancer.

NOTE Confidence: 0.7670193

 $00{:}37{:}54.750 \dashrightarrow 00{:}37{:}56.826$ The treatment of choice is a

NOTE Confidence: 0.7670193

 $00:37:56.826 \dashrightarrow 00:37:58.710$ proceeding with surgery, so again,

NOTE Confidence: 0.7670193

 $00:37:58.710 \dashrightarrow 00:38:01.230$ I'm talking about clinical staging here.

NOTE Confidence: 0.7670193

 $00{:}38{:}01{.}230 \dashrightarrow 00{:}38{:}04{.}310$ So when a person is found to have

NOTE Confidence: 0.7670193

 $00:38:04.310 \dashrightarrow 00:38:07.339$ clinical stage two or stage three disease,

NOTE Confidence: 0.7670193

 $00:38:07.340 \longrightarrow 00:38:09.365$ and we determined that they

NOTE Confidence: 0.7670193

 $00:38:09.365 \longrightarrow 00:38:10.175$ three presurgical,

NOTE Confidence: 0.7670193

00:38:10.180 --> 00:38:11.792 CT scan or MRI,

NOTE Confidence: 0.7670193

 $00:38:11.792 \rightarrow 00:38:14.704$ they are very helpful in telling us

NOTE Confidence: 0.7670193

 $00{:}38{:}14.704 \dashrightarrow 00{:}38{:}17.920$ whether a person is as a clinical stage,

NOTE Confidence: 0.7670193

 $00{:}38{:}17{.}920 \dashrightarrow 00{:}38{:}20{.}769$ one stage two or stage three disease.

 $00:38:20.770 \longrightarrow 00:38:22.710$ So those individuals with clinical

NOTE Confidence: 0.7670193

 $00{:}38{:}22.710$ --> $00{:}38{:}25.240$ stage two and stage three disease,

NOTE Confidence: 0.7670193

 $00:38:25.240 \longrightarrow 00:38:28.848$ we recommend neoadjuvant therapy.

NOTE Confidence: 0.7670193

00:38:28.850 --> 00:38:31.740 As Doctor Mcwhorter had indicated,

NOTE Confidence: 0.7670193

 $00:38:31.740 \longrightarrow 00:38:35.740$ there are no one universally

NOTE Confidence: 0.7670193

 $00:38:35.740 \longrightarrow 00:38:37.340$ accepted regimen.

NOTE Confidence: 0.7670193

 $00{:}38{:}37{.}340 \dashrightarrow 00{:}38{:}39{.}715$ The most commonly used treatment

NOTE Confidence: 0.7670193

 $00:38:39.715 \rightarrow 00:38:41.615$ modality consists of combination

NOTE Confidence: 0.7670193

 $00{:}38{:}41.615 \dashrightarrow 00{:}38{:}43.895$ of radiation the rapy with either

NOTE Confidence: 0.7670193

00:38:43.895 --> 00:38:46.493 5F U chemotherapy which is given

NOTE Confidence: 0.7670193

 $00{:}38{:}46{.}566{\:}-{:}>00{:}38{:}48{.}731$ intravenously or an oral chemotherapy

NOTE Confidence: 0.7670193

 $00:38:48.731 \longrightarrow 00:38:51.352$ which is oral version of fire.

NOTE Confidence: 0.7670193

00:38:51.352 --> 00:38:53.160 If you called Xeloda,

NOTE Confidence: 0.7670193

 $00:38:53.160 \longrightarrow 00:38:56.814$ these two chemo treatments are often

NOTE Confidence: 0.7670193

 $00:38:56.814 \rightarrow 00:39:00.290$ administered roughly about 5 1/2 weeks.

NOTE Confidence: 0.7670193

00:39:00.290 --> 00:39:01.054 Generally speaking,

- NOTE Confidence: 0.7670193
- $00{:}39{:}01{.}054 \dashrightarrow 00{:}39{:}04{.}110$ after this five and a half week of

 $00{:}39{:}04.186 \dashrightarrow 00{:}39{:}07.018$ preoperative radiation and chemotherapy,

NOTE Confidence: 0.7670193

 $00:39:07.020 \longrightarrow 00:39:11.017$ we wait about 8 weeks before a

NOTE Confidence: 0.7670193

00:39:11.017 --> 00:39:13.760 person proceed with surgery.

NOTE Confidence: 0.7670193

 $00:39:13.760 \longrightarrow 00:39:16.262$ At times when we give this

NOTE Confidence: 0.7670193

 $00:39:16.262 \rightarrow 00:39:17.513$ radiation and chemotherapy,

NOTE Confidence: 0.7670193

 $00:39:17.520 \rightarrow 00:39:20.028$ followed by several months of chemotherapy,

NOTE Confidence: 0.7670193

 $00:39:20.030 \rightarrow 00:39:22.538$ that is called total neoadjuvant therapy.

NOTE Confidence: 0.7670193

 $00:39:22.540 \longrightarrow 00:39:25.543$ We typically try to have all of

NOTE Confidence: 0.7670193

 $00:39:25.543 \rightarrow 00:39:27.816$ our pre surgical treatment wrapped

NOTE Confidence: 0.7670193

 $00{:}39{:}27.816 \dashrightarrow 00{:}39{:}31.392$ up in less than a six month less

NOTE Confidence: 0.7670193

00:39:31.484 --> 00:39:34.700 than six months before a patient

NOTE Confidence: 0.7670193

 $00{:}39{:}34{.}700 \dashrightarrow 00{:}39{:}36{.}844$ could proceed with surgery.

NOTE Confidence: 0.7670193

 $00{:}39{:}36.850 \dashrightarrow 00{:}39{:}39.076$ This is a little treatment algorithm.

NOTE Confidence: 0.7670193

 $00{:}39{:}39{.}080 \dashrightarrow 00{:}39{:}42{.}419$ I know this is a very simplified a picture,

 $00:39:42.420 \longrightarrow 00:39:44.640$ so when a person is diagnosed

NOTE Confidence: 0.7670193

 $00{:}39{:}44.640 \dashrightarrow 00{:}39{:}45.750$ with colorectal cancer,

NOTE Confidence: 0.7670193

00:39:45.750 -> 00:39:48.347 if a person has say stage one

NOTE Confidence: 0.7670193

00:39:48.347 --> 00:39:50.202 clinical excuse me, stage one,

NOTE Confidence: 0.7670193

 $00:39:50.202 \dashrightarrow 00:39:52.428$ stage two or three colon cancer.

NOTE Confidence: 0.7670193

 $00{:}39{:}52{.}430 \dashrightarrow 00{:}39{:}54{.}240$ They proceed to surgery similarly

NOTE Confidence: 0.7670193

 $00{:}39{:}54{.}240 \dashrightarrow 00{:}39{:}56{.}510$ for personal stage one rectal cancer.

NOTE Confidence: 0.7670193

 $00:39:56.510 \longrightarrow 00:39:58.322$ They proceed with surgery.

NOTE Confidence: 0.7670193

 $00{:}39{:}58{.}322 \dashrightarrow 00{:}40{:}01{.}040$ The pathologist will assess a spell.

NOTE Confidence: 0.7670193

 $00:40:01.040 \longrightarrow 00:40:03.290$ Provide us with the pathologic

NOTE Confidence: 0.7670193

00:40:03.290 --> 00:40:05.999 staging stage one disease in case

NOTE Confidence: 0.7670193

 $00{:}40{:}05{.}999 \dashrightarrow 00{:}40{:}08{.}617$ of a patient with stage one disease

NOTE Confidence: 0.7670193

 $00{:}40{:}08.617 \dashrightarrow 00{:}40{:}11.318$ and they go into the observation

NOTE Confidence: 0.7670193

 $00{:}40{:}11.318 \dashrightarrow 00{:}40{:}13.190$ of the surveillance mode.

NOTE Confidence: 0.7670193

 $00:40:13.190 \longrightarrow 00:40:15.355$ Stage two cancer's with with

NOTE Confidence: 0.7670193

00:40:15.355 --> 00:40:16.654 favorable features again,

 $00{:}40{:}16.660 \dashrightarrow 00{:}40{:}19.114$ will go into the surveillance of

NOTE Confidence: 0.7670193

00:40:19.114 --> 00:40:21.297 patients with stage two cancers

NOTE Confidence: 0.7670193

 $00:40:21.297 \longrightarrow 00:40:23.169$ with high risk features,

NOTE Confidence: 0.7670193

 $00{:}40{:}23.170 \dashrightarrow 00{:}40{:}26.378$ as well as those with State Street are

NOTE Confidence: 0.7670193

 $00{:}40{:}26.378$ --> $00{:}40{:}28.819$ counseled about as even chemotherapy.

NOTE Confidence: 0.8437683

 $00{:}40{:}31.460 \dashrightarrow 00{:}40{:}34.834$ The clinical stage two and stage three

NOTE Confidence: 0.8437683

 $00:40:34.834 \longrightarrow 00:40:38.060$ rectal cancer patients are advised to

NOTE Confidence: 0.8437683

 $00:40:38.060 \rightarrow 00:40:40.880$ receive pre operative neoadjuvant therapy.

NOTE Confidence: 0.8437683

 $00{:}40{:}40{.}880 \dashrightarrow 00{:}40{:}43{.}415$ Or simplified said new item

NOTE Confidence: 0.8437683

 $00:40:43.415 \longrightarrow 00:40:45.443$ and radiation and chemo.

NOTE Confidence: 0.8437683

 $00{:}40{:}45{.}450 \dashrightarrow 00{:}40{:}47{.}879$ By surgery and again we have surgical

NOTE Confidence: 0.8437683

00:40:47.879 --> 00:40:50.454 staging and based on the surgical features

NOTE Confidence: 0.8437683

 $00{:}40{:}50{.}454 \dashrightarrow 00{:}40{:}52{.}650$ some patients are told to undergo

NOTE Confidence: 0.8437683

 $00{:}40{:}52.720 \dashrightarrow 00{:}40{:}55.072$ surveillance and some patients will be

NOTE Confidence: 0.8437683

 $00{:}40{:}55{.}072 \dashrightarrow 00{:}40{:}59{.}349$ counseled to receive as if in the rapy.

 $00:40:59.350 \rightarrow 00:41:01.882$ So follow up and surveillance consists

NOTE Confidence: 0.8437683

 $00{:}41{:}01.882 \dashrightarrow 00{:}41{:}04.550$ of blood test and examination.

NOTE Confidence: 0.8437683

 $00:41:04.550 \longrightarrow 00:41:07.322$ In the beginning every few months

NOTE Confidence: 0.8437683

 $00{:}41{:}07{.}322 \dashrightarrow 00{:}41{:}09{.}735$ and perhaps the interval becoming

NOTE Confidence: 0.8437683

 $00{:}41{:}09{.}735 \dashrightarrow 00{:}41{:}11{.}647$ longer as years pass.

NOTE Confidence: 0.8437683

 $00{:}41{:}11.650 \dashrightarrow 00{:}41{:}14.010$ For some few select patients.

NOTE Confidence: 0.8437683

 $00{:}41{:}14.010 \dashrightarrow 00{:}41{:}16.848$ We also recommend CT scan mass.

NOTE Confidence: 0.8437683

 $00:41:16.850 \longrightarrow 00:41:18.742$ Doctor Mcwhorter indicated a

NOTE Confidence: 0.8437683

00:41:18.742 --> 00:41:20.634 screening colonoscopy is crucial.

NOTE Confidence: 0.8437683

00:41:20.640 --> 00:41:23.015 We recommend colonoscopy within a

NOTE Confidence: 0.8437683

 $00{:}41{:}23.015 \dashrightarrow 00{:}41{:}26.395$ year of the surgery and we follow

NOTE Confidence: 0.8437683

 $00{:}41{:}26.395 \dashrightarrow 00{:}41{:}29.143$ our patients for about five years.

NOTE Confidence: 0.8191002

 $00:41:31.590 \longrightarrow 00:41:33.220$ And that is the measurement,

NOTE Confidence: 0.8191002

 $00:41:33.220 \rightarrow 00:41:34.192$ and new regimen.

NOTE Confidence: 0.8191002

 $00{:}41{:}34{.}192 \dashrightarrow 00{:}41{:}35{.}488$ The rapy in a nutshell.

NOTE Confidence: 0.8191002

00:41:35.490 --> 00:41:37.380 And then I will let Doctor Boy

- NOTE Confidence: 0.8191002
- 00:41:37.380 --> 00:41:39.409 Carry on on the management of

 $00{:}41{:}39{.}409 \dashrightarrow 00{:}41{:}41{.}334$ advance or stage four cancers.

NOTE Confidence: 0.8583353

 $00:41:43.100 \longrightarrow 00:41:45.550$ Thanks so much Doctor Lee.

NOTE Confidence: 0.8583353

00:41:45.550 --> 00:41:49.085 Doctor Boyd, it's nice to see you.

NOTE Confidence: 0.8583353

00:41:49.090 --> 00:41:51.334 We will let you be their

NOTE Confidence: 0.8583353

 $00:41:51.334 \rightarrow 00:41:52.830$ last speaker this evening.

NOTE Confidence: 0.8583353

 $00:41:52.830 \longrightarrow 00:41:54.700$ You'll need to unmute and

NOTE Confidence: 0.8583353

 $00{:}41{:}54{.}700 \dashrightarrow 00{:}41{:}56{.}196$ then share your screen.

NOTE Confidence: 0.85622114

 $00{:}42{:}00{.}360 \dashrightarrow 00{:}42{:}02{.}970$ Hopefully yeah, that worked good. Now

NOTE Confidence: 0.85622114

 $00:42:02.970 \longrightarrow 00:42:06.708$ I need to get my presentation.

NOTE Confidence: 0.85622114

 $00{:}42{:}06{.}710 \dashrightarrow 00{:}42{:}09{.}744$ Nothing like being an old

NOTE Confidence: 0.85622114

 $00{:}42{:}09{.}744 \dashrightarrow 00{:}42{:}12{.}268$ man with new technology.

NOTE Confidence: 0.85622114

 $00:42:12.270 \longrightarrow 00:42:16.310$ We see this at show up now. Sorry.

NOTE Confidence: 0.8141336

 $00{:}42{:}39{.}640 \dashrightarrow 00{:}42{:}41{.}810$ But perhaps I can so Doctor Boyd,

NOTE Confidence: 0.8141336

00:42:41.810 --> 00:42:43.628 maybe Emily can assist you offline

 $00{:}42{:}43.628 \dashrightarrow 00{:}42{:}46.142$ and then I'm happy to maybe ask our

NOTE Confidence: 0.8141336

 $00{:}42{:}46{.}142 \dashrightarrow 00{:}42{:}47{.}996$ other panelists a few questions while

NOTE Confidence: 0.8141336

00:42:48.059 --> 00:42:50.180 we're helping you get your screen up.

NOTE Confidence: 0.8141336

00:42:50.180 --> 00:42:51.730 OK, yeah, great, that's OK.

NOTE Confidence: 0.8141336

00:42:51.730 --> 00:42:54.082 No worries. Maybe if you can go on

NOTE Confidence: 0.8141336

 $00{:}42{:}54.082 \dashrightarrow 00{:}42{:}56.379$ mute for a moment and then Emily,

NOTE Confidence: 0.8141336

 $00:42:56.380 \longrightarrow 00:42:57.620$ and maybe she will.

NOTE Confidence: 0.8494072

 $00:43:00.340 \longrightarrow 00:43:02.356$ Alright great so we have had

NOTE Confidence: 0.8494072

00:43:02.356 --> 00:43:04.212 a few questions come through

NOTE Confidence: 0.8494072

 $00{:}43{:}04{.}212 \dashrightarrow 00{:}43{:}06{.}387$ the chat and Doctor Mc whorter.

NOTE Confidence: 0.8494072

 $00:43:06.390 \longrightarrow 00:43:08.658$ I know that you answered one,

NOTE Confidence: 0.8494072

00:43:08.660 --> 00:43:11.180 but maybe we can just talk a little

NOTE Confidence: 0.8494072

00:43:11.180 --> 00:43:13.560 bit about the question that came

NOTE Confidence: 0.8494072

 $00{:}43{:}13.560 \dashrightarrow 00{:}43{:}15.660$ through was rectal cancer was

NOTE Confidence: 0.8494072

 $00{:}43{:}15.660 \dashrightarrow 00{:}43{:}18.075$ removed with clean borders and 30

NOTE Confidence: 0.8494072

 $00{:}43{:}18.075 \dashrightarrow 00{:}43{:}20.281$ negative lymph nodes and this is

00:43:20.281 --> 00:43:22.529 sort of a combo of a surgical and

NOTE Confidence: 0.8494072

 $00:43:22.529 \rightarrow 00:43:24.577$ oncology question is is chemotherapy

NOTE Confidence: 0.8494072

00:43:24.577 --> 00:43:26.702 necessary necessary after the surgery

NOTE Confidence: 0.8494072

 $00:43:26.702 \rightarrow 00:43:29.069$ to prevent for future recurrence?

NOTE Confidence: 0.8494072

 $00{:}43{:}29.070 \dashrightarrow 00{:}43{:}32.326$ Maybe you can talk a little bit about.

NOTE Confidence: 0.8494072

 $00{:}43{:}32{.}330 \dashrightarrow 00{:}43{:}34{.}834$ Why do you take so many lymph nodes?

NOTE Confidence: 0.8494072

 $00:43:34.840 \rightarrow 00:43:37.666$ Is that a normal part of a rectal surgery?

NOTE Confidence: 0.8494072

00:43:37.670 - 00:43:39.548 What? How does that help you?

NOTE Confidence: 0.8494072

 $00{:}43{:}39{.}550 \dashrightarrow 00{:}43{:}41{.}534$ And and then may be even Doctor Lee and NOTE Confidence: 0.8494072

 $00:43:41.534 \rightarrow 00:43:43.948$ I can comment someone the chemotherapy.

NOTE Confidence: 0.83761686

 $00:43:45.470 \longrightarrow 00:43:48.011$ Yeah, in the interest of getting all

NOTE Confidence: 0.83761686

 $00{:}43{:}48.011 \dashrightarrow 00{:}43{:}50.790$ of the cancer out, we want to take

NOTE Confidence: 0.83761686

00:43:50.790 --> 00:43:53.250 out both where the cancer has grown

NOTE Confidence: 0.83761686

 $00{:}43{:}53{.}250 \dashrightarrow 00{:}43{:}56{.}071$ into the intestinal wall but also the

NOTE Confidence: 0.83761686

 $00{:}43{:}56.071 \dashrightarrow 00{:}43{:}58.938$ lymph nodes that it can spread into an.

 $00{:}43{:}58{.}940 \dashrightarrow 00{:}44{:}01{.}844$ So in the interest of not leaving anything

NOTE Confidence: 0.83761686

 $00:44:01.844 \longrightarrow 00:44:04.172$ behind, we do harvest as many lymph

NOTE Confidence: 0.83761686

 $00{:}44{:}04{.}172 \dashrightarrow 00{:}44{:}07{.}307$ nodes as we can for a cancer operation,

NOTE Confidence: 0.83761686

 $00{:}44{:}07{.}310 \dashrightarrow 00{:}44{:}09{.}872$ which is different from if I take

NOTE Confidence: 0.83761686

 $00:44:09.872 \longrightarrow 00:44:11.976$ out somebody's colon for, say,

NOTE Confidence: 0.83761686

00:44:11.976 --> 00:44:14.640 diverticulitis or Crohn's disease.

NOTE Confidence: 0.83761686

 $00{:}44{:}14.640 \dashrightarrow 00{:}44{:}16.950$ That's not a disease that spreads

NOTE Confidence: 0.83761686

 $00:44:16.950 \longrightarrow 00:44:20.179$ around the body so so we do consciously

NOTE Confidence: 0.83761686

 $00{:}44{:}20.179 \dashrightarrow 00{:}44{:}21.385$ take lymph nodes.

NOTE Confidence: 0.83761686

 $00:44:21.390 \longrightarrow 00:44:23.766$ People don't miss them. They don't.

NOTE Confidence: 0.83761686

 $00:44:23.770 \rightarrow 00:44:26.146$ They're not going to, you know.

NOTE Confidence: 0.83761686

 $00:44:26.150 \rightarrow 00:44:28.140$ People ask that question sometimes,

NOTE Confidence: 0.83761686

 $00:44:28.140 \longrightarrow 00:44:30.919$ but you're not going to miss them,

NOTE Confidence: 0.83761686

 $00{:}44{:}30{.}920 \dashrightarrow 00{:}44{:}33{.}685$ and so it's in the interest of

NOTE Confidence: 0.83761686

 $00:44:33.685 \rightarrow 00:44:35.330$ removing every everything where

NOTE Confidence: 0.83761686

 $00:44:35.330 \longrightarrow 00:44:37.270$ the cancer may have spread.

 $00{:}44{:}37{.}270 \dashrightarrow 00{:}44{:}41{.}424$ Locali the reason that we do it and

NOTE Confidence: 0.83761686

 $00{:}44{:}41{.}424 \dashrightarrow 00{:}44{:}43{.}529$ then the pathologist tells us if the

NOTE Confidence: 0.83761686

 $00:44:43.529 \rightarrow 00:44:45.281$ cancer is spread into those lymph

NOTE Confidence: 0.83761686

 $00{:}44{:}45{.}343 \dashrightarrow 00{:}44{:}47{.}557$ nodes and the other really important

NOTE Confidence: 0.83761686

 $00{:}44{:}47.557 \dashrightarrow 00{:}44{:}49.626$ piece of information that we look

NOTE Confidence: 0.83761686

 $00:44:49.626 \rightarrow 00:44:51.970$ to is how deeply into the wall of

NOTE Confidence: 0.83761686

 $00:44:52.044 \longrightarrow 00:44:54.186$ the colon did the cancer grow.

NOTE Confidence: 0.83761686

 $00:44:54.190 \rightarrow 00:44:56.494$ I think those are the two main pieces

NOTE Confidence: 0.83761686

 $00{:}44{:}56{.}494 \dashrightarrow 00{:}44{:}58{.}058$ of information that the oncologist

NOTE Confidence: 0.83761686

 $00{:}44{:}58.058 \dashrightarrow 00{:}45{:}00.228$ then uses to determine should you or

NOTE Confidence: 0.83761686

 $00:45:00.287 \rightarrow 00:45:02.555$ should you not have agement chemotherapy?

NOTE Confidence: 0.8453295

00:45:04.370 --> 00:45:05.880 Great thank you Doctor Lee.

NOTE Confidence: 0.8453295

 $00{:}45{:}05{.}880 \dashrightarrow 00{:}45{:}08{.}280$ Do you want to add some about you?

NOTE Confidence: 0.8453295

 $00:45:08.280 \longrightarrow 00:45:11.180$ Know lymph node negative?

NOTE Confidence: 0.8453295

00:45:11.180 --> 00:45:13.628 It looks like we may have Doctor Boydan.

00:45:15.640 --> 00:45:19.076 Alright. And then Doctor Boy,

NOTE Confidence: 0.914085

 $00{:}45{:}19.076$ --> $00{:}45{:}20.546$ you'll just need to touch.

NOTE Confidence: 0.914085

 $00{:}45{:}20.550 \dashrightarrow 00{:}45{:}22.020$ There's a slide presentation button.

NOTE Confidence: 0.914085

 $00:45:22.020 \longrightarrow 00:45:24.372$ Alright, let me let me go so we

NOTE Confidence: 0.914085

 $00:45:24.372 \longrightarrow 00:45:26.718$ can just we can just go from here.

NOTE Confidence: 0.914085

 $00{:}45{:}26.720 \dashrightarrow 00{:}45{:}27.599$ That's fine too.

NOTE Confidence: 0.8414882

00:45:27.600 --> 00:45:29.802 Yeah, sorry bout my technological skills

NOTE Confidence: 0.8414882

 $00:45:29.802 \longrightarrow 00:45:32.838$ I do know how to drive a car though.

NOTE Confidence: 0.8414882

00:45:32.840 --> 00:45:36.432 That I learned. So I'm going to

NOTE Confidence: 0.8414882

 $00{:}45{:}36{.}432 \dashrightarrow 00{:}45{:}38{.}854$ talk about the last part is going

NOTE Confidence: 0.8414882

 $00{:}45{:}38.854 \dashrightarrow 00{:}45{:}41.846$ to be about how we deal with the

NOTE Confidence: 0.8414882

 $00:45:41.846 \rightarrow 00:45:44.358$ complexity of metastatic colon cancer.

NOTE Confidence: 0.8414882

00:45:44.360 - 00:45:46.285 We've heard about early stage

NOTE Confidence: 0.8414882

 $00:45:46.285 \rightarrow 00:45:47.825$ and surgery attachment therapy,

NOTE Confidence: 0.8414882

 $00:45:47.830 \longrightarrow 00:45:49.138$ but really, critically,

NOTE Confidence: 0.8414882

 $00{:}45{:}49{.}138 \dashrightarrow 00{:}45{:}51{.}754$ a substantial number of colon cancer

- NOTE Confidence: 0.8414882
- $00:45:51.754 \rightarrow 00:45:53.970$ patients up to 60% end up developing

 $00{:}45{:}53{.}970 \dashrightarrow 00{:}45{:}55{.}490$ metastatic cancer within their

NOTE Confidence: 0.8414882

 $00{:}45{:}55{.}490 \dashrightarrow 00{:}45{:}57{.}839$ period of time with their disease.

NOTE Confidence: 0.8414882

 $00:45:57.840 \longrightarrow 00:45:59.570$ Majority of these actually will

NOTE Confidence: 0.8414882

 $00{:}45{:}59{.}570 \dashrightarrow 00{:}46{:}02{.}070$ turn out to be hepatic metastasis.

NOTE Confidence: 0.8414882

00:46:02.070 --> 00:46:05.269 I'll show you why most will develop.

NOTE Confidence: 0.8414882

 $00{:}46{:}05{.}270 \dashrightarrow 00{:}46{:}08{.}091$ Most of the cancers that do metastasize

NOTE Confidence: 0.8414882

00:46:08.091 --> 00:46:10.340 often occur following successful or did

NOTE Confidence: 0.8414882

 $00{:}46{:}10{.}340$ --> $00{:}46{:}12{.}982$ surgery and may or may not have had NOTE Confidence: 0.8414882

 $00:46:12.982 \rightarrow 00:46:15.446$ with therapy and then at a later time.

NOTE Confidence: 0.8414882

00:46:15.450 --> 00:46:16.738 Development is static disease,

NOTE Confidence: 0.8414882

00:46:16.738 --> 00:46:19.104 but up to 1/3 of patients will

NOTE Confidence: 0.8414882

 $00:46:19.104 \rightarrow 00:46:20.600$ actually develop metastatic cancer

NOTE Confidence: 0.8414882

 $00{:}46{:}20.600 \dashrightarrow 00{:}46{:}22.470$ at the time of diagnosis.

NOTE Confidence: 0.8414882

 $00:46:22.470 \longrightarrow 00:46:24.225$ The goals in general for

00:46:24.225 --> 00:46:25.278 treating metastatic cancer,

NOTE Confidence: 0.8414882

 $00{:}46{:}25{.}280 \dashrightarrow 00{:}46{:}27{.}340$ palliative because obviously for the

NOTE Confidence: 0.8414882

 $00{:}46{:}27{.}340 \dashrightarrow 00{:}46{:}30{.}407$ most part we tend to think of this NOTE Confidence: 0.8414882

00:46:30.407 --> 00:46:33.378 is not is not curative but we try to NOTE Confidence: 0.8414882

 $00:46:33.378 \longrightarrow 00:46:35.905$ improve quality of life and goals are.

NOTE Confidence: 0.8414882

 $00{:}46{:}35{.}910 \dashrightarrow 00{:}46{:}37{.}776$ Clearly to have prolong survival as NOTE Confidence: 0.8414882

 $00{:}46{:}37.776 \dashrightarrow 00{:}46{:}40.294$ best we can and identify the small

NOTE Confidence: 0.8414882

 $00{:}46{:}40{.}294 \dashrightarrow 00{:}46{:}42{.}712$ number of patients who actually are

NOTE Confidence: 0.8414882

 $00{:}46{:}42.712 \dashrightarrow 00{:}46{:}44.415$ potentially curable through surgical

NOTE Confidence: 0.8414882

00:46:44.415 --> 00:46:46.893 approaches such as metastatic to me,

NOTE Confidence: 0.8414882

 $00{:}46{:}46{.}900 \dashrightarrow 00{:}46{:}49{.}180$ particularly liver Mets and Lung Mets,

NOTE Confidence: 0.8414882

 $00:46:49.180 \longrightarrow 00:46:52.540$ which may actually be curable.

NOTE Confidence: 0.8414882

00:46:52.540 --> 00:46:53.804 Just as an example,

NOTE Confidence: 0.8414882

 $00:46:53.804 \rightarrow 00:46:56.467$ one of the ways to understand how this

NOTE Confidence: 0.8414882

 $00{:}46{:}56{.}467 \dashrightarrow 00{:}46{:}59{.}251$ spreads is that the colon is somewhat unique.

NOTE Confidence: 0.8414882

 $00:46:59.260 \rightarrow 00:47:02.275$ You see the left and the right colon there,

- NOTE Confidence: 0.8414882
- $00:47:02.280 \rightarrow 00:47:04.618$ with the blue showing you the blood

00:47:04.618 --> 00:47:06.649 flow going right into the liver,

NOTE Confidence: 0.8414882

 $00:47:06.650 \longrightarrow 00:47:08.594$ and that in part explains that

NOTE Confidence: 0.8414882

00:47:08.594 --> 00:47:09.890 disproportionately high level of

NOTE Confidence: 0.8414882

 $00{:}47{:}09{.}941 \dashrightarrow 00{:}47{:}11.686$ metastatic disease into the liver.

NOTE Confidence: 0.8414882

00:47:11.690 --> 00:47:12.020 However,

NOTE Confidence: 0.8414882

 $00:47:12.020 \rightarrow 00:47:14.000$ the lymphatics and green will also

NOTE Confidence: 0.8414882

00:47:14.000 -> 00:47:16.394 take it beyond the liver into the

NOTE Confidence: 0.8414882

 $00{:}47{:}16.394 \dashrightarrow 00{:}47{:}18.410$ systemic circulation and to other areas,

NOTE Confidence: 0.8414882

 $00{:}47{:}18{.}410 \dashrightarrow 00{:}47{:}20{.}503$ and so it's not unusual overtime to

NOTE Confidence: 0.8414882

 $00{:}47{:}20.503 \dashrightarrow 00{:}47{:}22.624$ go from having liver metastasis to

NOTE Confidence: 0.8414882

 $00{:}47{:}22.624 \dashrightarrow 00{:}47{:}24.564$ even brain Mets lung metastasis.

NOTE Confidence: 0.8414882

00:47:24.570 --> 00:47:25.204 Info info.

NOTE Confidence: 0.8414882

 $00{:}47{:}25{.}204 \dashrightarrow 00{:}47{:}27{.}106$ The principles of how we treat

NOTE Confidence: 0.8414882

 $00{:}47{:}27.106 \dashrightarrow 00{:}47{:}29.713$ this go back to what Doctor Lee

 $00:47:29.713 \longrightarrow 00:47:31.237$ was originally talking about.

NOTE Confidence: 0.8414882

 $00{:}47{:}31{.}240 \dashrightarrow 00{:}47{:}34{.}224$ With that red therapy, but it's beyond that.

NOTE Confidence: 0.8414882

00:47:34.230 --> 00:47:35.554 Because in metastatic cancer,

NOTE Confidence: 0.8414882

 $00:47:35.554 \rightarrow 00:47:38.204$ the goal is to understand we now look

NOTE Confidence: 0.8414882

 $00{:}47{:}38{.}204 \dashrightarrow 00{:}47{:}40{.}318$ at tumor Biology and we looked at

NOTE Confidence: 0.8414882

00:47:40.318 --> 00:47:42.509 biomarkers that will alter our treatment

NOTE Confidence: 0.8414882

 $00:47:42.509 \rightarrow 00:47:44.334$ decisions very critically and very

NOTE Confidence: 0.8414882

 $00:47:44.340 \longrightarrow 00:47:46.699$ often in the first line of therapy,

NOTE Confidence: 0.8414882

 $00{:}47{:}46.700 \dashrightarrow 00{:}47{:}47.696$ chemotherapy remains central,

NOTE Confidence: 0.8414882

 $00{:}47{:}47.696 \dashrightarrow 00{:}47{:}50.020$ but we also often will add biological

NOTE Confidence: 0.8414882

00:47:50.079 - 00:47:51.419 agents to improve outcomes.

NOTE Confidence: 0.8414882

 $00:47:51.420 \longrightarrow 00:47:53.436$ One of the concepts we all are

NOTE Confidence: 0.8414882

 $00{:}47{:}53{.}436 \dashrightarrow 00{:}47{:}55{.}518$ dealing with as physicians is what

NOTE Confidence: 0.8414882

 $00:47:55.518 \rightarrow 00:47:57.816$ we call sequential lines of the rapy.

NOTE Confidence: 0.8414882

 $00:47:57.820 \longrightarrow 00:48:00.179$ The idea that we start with one.

NOTE Confidence: 0.8414882

 $00:48:00.180 \longrightarrow 00:48:02.196$ We continue on that and then

- NOTE Confidence: 0.8414882
- $00:48:02.196 \longrightarrow 00:48:03.204$ when patients progress,

 $00:48:03.210 \longrightarrow 00:48:04.322$ we consider that resistant.

NOTE Confidence: 0.8414882

 $00:48:04.322 \longrightarrow 00:48:06.621$ We go on to another one and that

NOTE Confidence: 0.8414882

00:48:06.621 --> 00:48:08.349 has been altered in colon cancer

NOTE Confidence: 0.8414882

00:48:08.349 --> 00:48:10.297 uniquely to into this concept of

NOTE Confidence: 0.8414882

00:48:10.297 --> 00:48:12.259 continuum of care that we individualize

NOTE Confidence: 0.8414882

 $00:48:12.260 \rightarrow 00:48:13.340$ therapy for each patient.

NOTE Confidence: 0.8414882

 $00{:}48{:}13{.}340 \dashrightarrow 00{:}48{:}14{.}960$ We may start with an aggressive

NOTE Confidence: 0.8414882

 $00:48:15.011 \longrightarrow 00:48:16.566$ therapy depending on the patient's

NOTE Confidence: 0.8414882

 $00:48:16.566 \longrightarrow 00:48:17.810$ course and their status.

NOTE Confidence: 0.8414882

 $00{:}48{:}17.810 \dashrightarrow 00{:}48{:}20.146$ We may then go onto a maintenance the rapy.

NOTE Confidence: 0.8414882

00:48:20.150 --> 00:48:21.758 We may go into lower intensity

NOTE Confidence: 0.8414882

 $00{:}48{:}21.758 \dashrightarrow 00{:}48{:}23.448$ treatments and then we may even

NOTE Confidence: 0.8414882

 $00{:}48{:}23.448 \dashrightarrow 00{:}48{:}24.863$ give them treatment free intervals

NOTE Confidence: 0.8414882

 $00:48:24.863 \longrightarrow 00:48:25.712$ which had at

 $00:48:25.767 \rightarrow 00:48:27.735$ one point not been considered rational.

NOTE Confidence: 0.83927435

 $00{:}48{:}27.740 \dashrightarrow 00{:}48{:}30.084$ But because of side effects and the need

NOTE Confidence: 0.83927435

 $00:48:30.084 \rightarrow 00:48:32.117$ to recover and the quality of life,

NOTE Confidence: 0.83927435

 $00:48:32.120 \longrightarrow 00:48:33.848$ we often will give them periods

NOTE Confidence: 0.83927435

 $00{:}48{:}33{.}848 \dashrightarrow 00{:}48{:}35{.}705$ of time where there off treatment

NOTE Confidence: 0.83927435

 $00{:}48{:}35{.}705 \dashrightarrow 00{:}48{:}37{.}320$ off some of the the rapies.

NOTE Confidence: 0.83927435

00:48:37.320 --> 00:48:39.232 And then we may even go back and

NOTE Confidence: 0.83927435

 $00:48:39.232 \rightarrow 00:48:40.482$ retreat with prior treatments

NOTE Confidence: 0.83927435

 $00{:}48{:}40{.}482 \dashrightarrow 00{:}48{:}42{.}267$ depending on duration of time.

NOTE Confidence: 0.83927435

 $00:48:42.270 \rightarrow 00:48:44.010$ But the key here is overtime.

NOTE Confidence: 0.83927435

00:48:44.010 -> 00:48:45.816 We tend to try to expose patients

NOTE Confidence: 0.83927435

 $00:48:45.816 \rightarrow 00:48:47.310$ to all active agents during

NOTE Confidence: 0.83927435

 $00:48:47.310 \longrightarrow 00:48:48.960$ the course of their illness,

NOTE Confidence: 0.83927435

 $00:48:48.960 \rightarrow 00:48:50.850$ which will clearly it has been shown

NOTE Confidence: 0.83927435

 $00:48:50.850 \longrightarrow 00:48:52.449$ to improve long term outcomes.

NOTE Confidence: 0.83927435

 $00:48:52.450 \longrightarrow 00:48:53.962$ This is an example for those

- NOTE Confidence: 0.83927435
- 00:48:53.962 --> 00:48:56.363 of you in my age who we didn't

 $00:48:56.363 \rightarrow 00:48:57.687$ have computers back then,

NOTE Confidence: 0.83927435

 $00{:}48{:}57.690 \dashrightarrow 00{:}48{:}59.594$ and I started off learning to use

NOTE Confidence: 0.83927435

 $00:48:59.594 \rightarrow 00:49:02.346$ 5F U as a way to treat colon cancer,

NOTE Confidence: 0.83927435

 $00:49:02.350 \longrightarrow 00:49:04.090$ and that was all we had.

NOTE Confidence: 0.83927435

 $00{:}49{:}04.090 \dashrightarrow 00{:}49{:}06.253$ And then these this is evolved over

NOTE Confidence: 0.83927435

 $00:49:06.253 \rightarrow 00:49:08.299$ from the early 80s into the 90s.

NOTE Confidence: 0.83927435

 $00:49:08.300 \rightarrow 00:49:10.205$ When we started using combination

NOTE Confidence: 0.83927435

 $00{:}49{:}10.205 \dashrightarrow 00{:}49{:}12.110$ the rapies and newer agents that

NOTE Confidence: 0.83927435

00:49:12.177 --> 00:49:13.877 used as Doctor Lee mentioned,

NOTE Confidence: 0.83927435

 $00:49:13.880 \longrightarrow 00:49:16.070$ Folfox is an example where we

NOTE Confidence: 0.83927435

00:49:16.070 --> 00:49:17.970 user entity I'm sorry five.

NOTE Confidence: 0.83927435

 $00{:}49{:}17{.}970 \dashrightarrow 00{:}49{:}19{.}830$ If you combined with oxaliplatin,

NOTE Confidence: 0.83927435

 $00{:}49{:}19{.}830 \dashrightarrow 00{:}49{:}21{.}804$ an agent that became available in NOTE Confidence: 0.83927435

 $00{:}49{:}21.804$ --> $00{:}49{:}24.537$ the early 90s and has been central NOTE Confidence: 0.83927435

 $00:49:24.537 \rightarrow 00:49:26.792$ to combination therapy and here

NOTE Confidence: 0.83927435

 $00{:}49{:}26.792 \dashrightarrow 00{:}49{:}28.409$ combination the rapies improve both

NOTE Confidence: 0.83927435

 $00{:}49{:}28{.}409 \dashrightarrow 00{:}49{:}30{.}663$ median survival and as you can see NOTE Confidence: 0.83927435

00:49:30.663 --> 00:49:32.850 in the blue increasing response rate.

NOTE Confidence: 0.83927435

 $00{:}49{:}32.850 \dashrightarrow 00{:}49{:}35.642$ But we've even move beyond that now to

NOTE Confidence: 0.83927435

 $00{:}49{:}35{.}642 \dashrightarrow 00{:}49{:}38{.}947$ the idea that we now use biological agents.

NOTE Confidence: 0.83927435

00:49:38.950 --> 00:49:40.690 In concert with that chemotherapy

NOTE Confidence: 0.83927435

 $00:49:40.690 \rightarrow 00:49:43.394$ and you can see down the therapeutic

NOTE Confidence: 0.83927435

 $00{:}49{:}43{.}394 \dashrightarrow 00{:}49{:}45{.}619$ concept with their targeted agents

NOTE Confidence: 0.83927435

 $00{:}49{:}45{.}619 \dashrightarrow 00{:}49{:}48{.}719$ based on mutations as well as different

NOTE Confidence: 0.83927435

 $00{:}49{:}48.719$ --> $00{:}49{:}50.834$ approaches to inhibiting tumor growth,

NOTE Confidence: 0.83927435

 $00{:}49{:}50{.}840 \dashrightarrow 00{:}49{:}52{.}480$ vascular growth factor inhibitors,

NOTE Confidence: 0.83927435

 $00:49:52.480 \longrightarrow 00:49:53.710$ such as bevacizumab,

NOTE Confidence: 0.83927435

 $00:49:53.710 \longrightarrow 00:49:54.518$ newer agents,

NOTE Confidence: 0.83927435

 $00:49:54.518 \rightarrow 00:49:58.220$ and we can string out and improve long term,

NOTE Confidence: 0.83927435

00:49:58.220 --> 00:50:00.820 survivals quite substantially in patients.

- NOTE Confidence: 0.83927435
- $00:50:00.820 \rightarrow 00:50:02.950$ With this this sequential combination

00:50:02.950 --> 00:50:03.376 approach,

NOTE Confidence: 0.83927435

 $00{:}50{:}03.380 \dashrightarrow 00{:}50{:}06.040$ but it's critical to understand the backbone

NOTE Confidence: 0.83927435

 $00:50:06.040 \rightarrow 00:50:08.509$ of treatment still remains chemotherapy,

NOTE Confidence: 0.83927435

 $00:50:08.510 \longrightarrow 00:50:10.214$ the floral pyrimidines and

NOTE Confidence: 0.83927435

 $00:50:10.214 \rightarrow 00:50:11.918$ it was mentioned earlier,

NOTE Confidence: 0.83927435

 $00{:}50{:}11{.}920 \dashrightarrow 00{:}50{:}15{.}072$ Folfox which uses 5F U as a doublet

NOTE Confidence: 0.83927435

 $00{:}50{:}15{.}072 \dashrightarrow 00{:}50{:}17{.}788$ because the look of Organism modulator

NOTE Confidence: 0.83927435

 $00{:}50{:}17.788 \dashrightarrow 00{:}50{:}20.890$ and the two chemo agents are 5F,

NOTE Confidence: 0.83927435

00:50:20.890 --> 00:50:22.171 U, and oxaliplatin,

NOTE Confidence: 0.83927435

00:50:22.171 --> 00:50:25.160 oxaliplatin has its own unique side effects,

NOTE Confidence: 0.83927435

00:50:25.160 --> 00:50:27.290 particularly cold sensitivity in neuropathy,

NOTE Confidence: 0.83927435

 $00:50:27.290 \longrightarrow 00:50:29.858$ well as are in OT Canon,

NOTE Confidence: 0.83927435

00:50:29.860 --> 00:50:31.440 folfiri often has diarrhea.

NOTE Confidence: 0.83927435

 $00{:}50{:}31{.}440 \dashrightarrow 00{:}50{:}34{.}720$ And other side effects as its consequence.

 $00:50:34.720 \rightarrow 00:50:36.930$ What's interesting is many patients

NOTE Confidence: 0.83927435

 $00:50:36.930 \longrightarrow 00:50:39.140$ will come having had prior

NOTE Confidence: 0.83927435

 $00:50:39.219 \rightarrow 00:50:41.289$ Azure in therapy with folfox,

NOTE Confidence: 0.83927435

 $00:50:41.290 \longrightarrow 00:50:43.480$ and so in those patients.

NOTE Confidence: 0.83927435

 $00{:}50{:}43.480 \dashrightarrow 00{:}50{:}46.558$ The initial therapy maybe folfiri using

NOTE Confidence: 0.83927435

 $00{:}50{:}46{.}558 \dashrightarrow 00{:}50{:}48{.}610$ a somewhat different combination.

NOTE Confidence: 0.83927435

 $00:50:48.610 \rightarrow 00:50:50.548$ In very aggressive disease with very

NOTE Confidence: 0.83927435

 $00:50:50.548 \longrightarrow 00:50:52.432$ high tourbook, we may combine them,

NOTE Confidence: 0.83927435

 $00:50:52.432 \dashrightarrow 00:50:54.770$ but this is really for younger people.

NOTE Confidence: 0.83927435

 $00{:}50{:}54{.}770 \dashrightarrow 00{:}50{:}56{.}546$ People are good quality and performance

NOTE Confidence: 0.83927435

 $00{:}50{:}56{.}546 \dashrightarrow 00{:}50{:}58{.}979$ status and we may actually combine Excel.

NOTE Confidence: 0.83927435

 $00{:}50{:}58{.}980 \dashrightarrow 00{:}51{:}01{.}612$ Planner in OT can if they have large

NOTE Confidence: 0.83927435

 $00:51:01.612 \rightarrow 00:51:03.879$ tumor bulk or aggressive disease.

NOTE Confidence: 0.83927435

 $00:51:03.880 \longrightarrow 00:51:04.592$ But importantly,

NOTE Confidence: 0.83927435

 $00{:}51{:}04{.}592 \dashrightarrow 00{:}51{:}08{.}038$ we also try now to use biology and use

NOTE Confidence: 0.83927435

 $00:51:08.038 \rightarrow 00:51:10.678$ these biomarkers to incorporate other

- NOTE Confidence: 0.83927435
- 00:51:10.678 -> 00:51:13.790 approaches. To this we look early on.
- NOTE Confidence: 0.83927435
- $00{:}51{:}13.790 \dashrightarrow 00{:}51{:}15.945$ Once the patient is diagnosed
- NOTE Confidence: 0.83927435
- $00:51:15.945 \longrightarrow 00:51:17.238$ with metastatic disease,
- NOTE Confidence: 0.83927435
- $00:51:17.240 \longrightarrow 00:51:20.096$ the first step is to make sure
- NOTE Confidence: 0.83927435
- $00:51:20.096 \rightarrow 00:51:21.980$ that their mutation status,
- NOTE Confidence: 0.83927435
- $00:51:21.980 \longrightarrow 00:51:24.075$ then they have critical mutations
- NOTE Confidence: 0.83927435
- 00:51:24.075 00:51:26.685 in a pathway called MAP kinase
- NOTE Confidence: 0.83927435
- $00{:}51{:}26.685 \dashrightarrow 00{:}51{:}28.449$ that's crass and Rasen.
- NOTE Confidence: 0.83927435
- $00{:}51{:}28{.}450 \dashrightarrow 00{:}51{:}30{.}605$ Be wrapping these three genes
- NOTE Confidence: 0.83927435
- 00:51:30.605 00:51:32.329 when mutated are activated,
- NOTE Confidence: 0.83927435
- $00:51:32.330 \longrightarrow 00:51:35.126$ and it means that they will
- NOTE Confidence: 0.83927435
- $00:51:35.126 \rightarrow 00:51:36.990$ therefore change the sensitivity.
- NOTE Confidence: 0.69435084
- $00:51:36.990 \longrightarrow 00:51:39.114$ To medicine, so for key resin
- NOTE Confidence: 0.69435084
- $00{:}51{:}39{.}114 \dashrightarrow 00{:}51{:}41{.}406$ resin be raff there are agents
- NOTE Confidence: 0.69435084
- $00:51:41.406 \longrightarrow 00:51:43.416$ that are called EGFR agents.
- NOTE Confidence: 0.69435084

 $00:51:43.420 \rightarrow 00:51:45.072$ Epidermal growth factor inhibitors

NOTE Confidence: 0.69435084

 $00{:}51{:}45.072 \dashrightarrow 00{:}51{:}48.210$ that are not active in those settings.

NOTE Confidence: 0.69435084

 $00{:}51{:}48{.}210$ --> $00{:}51{:}50{.}709$ Her to which many people are familiar NOTE Confidence: 0.69435084

 $00:51:50.709 \rightarrow 00:51:53.014$ with with breast cancer can also

NOTE Confidence: 0.69435084

 $00{:}51{:}53.014 \dashrightarrow 00{:}51{:}54.954$ be upregulated in colon cancer.

NOTE Confidence: 0.69435084

00:51:54.960 --> 00:51:56.184 And really importantly,

NOTE Confidence: 0.69435084

 $00{:}51{:}56{.}184 \dashrightarrow 00{:}51{:}59{.}040$ this subgroup that includes up to 6

NOTE Confidence: 0.69435084

 $00{:}51{:}59{.}114 \dashrightarrow 00{:}52{:}01{.}185$ to 8% of patients will have defects

NOTE Confidence: 0.69435084

 $00{:}52{:}01{.}185 \dashrightarrow 00{:}52{:}03{.}590$ in their ability to repair mutations.

NOTE Confidence: 0.69435084

 $00{:}52{:}03{.}590 \dashrightarrow 00{:}52{:}05{.}949$ We call that mismatch repair and it's NOTE Confidence: 0.69435084

 $00:52:05.949 \rightarrow 00:52:09.060$ in a unique group who have a very

NOTE Confidence: 0.69435084

 $00:52:09.060 \rightarrow 00:52:11.090$ high sensitivity to immune treatment.

NOTE Confidence: 0.69435084

 $00{:}52{:}11.090 \dashrightarrow 00{:}52{:}12.960$ And Lastly, the tumor sidedness.

NOTE Confidence: 0.69435084

 $00{:}52{:}12{.}960 \dashrightarrow 00{:}52{:}15{.}893$ This is the intriguing biology that left

NOTE Confidence: 0.69435084

 $00:52:15.893 \rightarrow 00:52:19.179$ sided cancers are different than right sided.

NOTE Confidence: 0.69435084

 $00:52:19.180 \rightarrow 00:52:22.260$ In terms of their biology and this is,

 $00:52:22.260 \rightarrow 00:52:24.955$ these are the biological agents I mentioned.

NOTE Confidence: 0.69435084

 $00{:}52{:}24{.}960 \dashrightarrow 00{:}52{:}26{.}940$ The EGFR targeted agents and whether

NOTE Confidence: 0.69435084

 $00:52:26.940 \rightarrow 00:52:29.684$ or not they are affected is largely

NOTE Confidence: 0.69435084

 $00:52:29.684 \longrightarrow 00:52:31.496$ determined by mutation status.

NOTE Confidence: 0.69435084

 $00{:}52{:}31{.}500 \dashrightarrow 00{:}52{:}33{.}425$ So patients who have mutated

NOTE Confidence: 0.69435084

 $00:52:33.425 \longrightarrow 00:52:34.580$ receptor mutated genes.

NOTE Confidence: 0.69435084

 $00{:}52{:}34{.}580 \dashrightarrow 00{:}52{:}37{.}408$ The rats and Rask Eracer be raffine

NOTE Confidence: 0.69435084

 $00:52:37.408 \rightarrow 00:52:40.358$ that may occur up to 4050% of patients,

NOTE Confidence: 0.69435084

 $00{:}52{:}40{.}358 \dashrightarrow 00{:}52{:}43{.}046$ depending on the side of the colon,

NOTE Confidence: 0.69435084

00:52:43.050 --> 00:52:45.306 for instance, only in wild type

NOTE Confidence: 0.69435084

00:52:45.306 -> 00:52:47.290 patients who have normal jeans.

NOTE Confidence: 0.69435084

 $00:52:47.290 \longrightarrow 00:52:48.673$ These normal jeans.

NOTE Confidence: 0.69435084

 $00{:}52{:}48.673 \dashrightarrow 00{:}52{:}50.517$ Do they effectively respond

NOTE Confidence: 0.69435084

 $00{:}52{:}50{.}517 \dashrightarrow 00{:}52{:}53{.}190$ to these EGFR targeted agents?

NOTE Confidence: 0.69435084

 $00:52:53.190 \longrightarrow 00:52:54.672$ Erbitux invective, X?

 $00:52:54.672 \rightarrow 00:52:57.142$ What's fascinating is that these

NOTE Confidence: 0.69435084

 $00{:}52{:}57{.}142 \dashrightarrow 00{:}52{:}59{.}244$ are particularly effective in tumors

NOTE Confidence: 0.69435084

 $00:52:59.244 \longrightarrow 00:53:01.680$ in the left side of the colon.

NOTE Confidence: 0.69435084

 $00:53:01.680 \longrightarrow 00:53:04.368$ If they are what we call wild time.

NOTE Confidence: 0.69435084

 $00:53:04.370 \rightarrow 00:53:04.689$ However,

NOTE Confidence: 0.69435084

 $00:53:04.689 \rightarrow 00:53:08.060$ if they are in the right side of the colon,

NOTE Confidence: 0.69435084

00:53:08.060 -> 00:53:09.740 even if they're be even,

NOTE Confidence: 0.69435084

 $00:53:09.740 \rightarrow 00:53:11.084$ if their mutation negative,

NOTE Confidence: 0.69435084

 $00{:}53{:}11.084 \dashrightarrow 00{:}53{:}13.486$ they tend not to respond as well

NOTE Confidence: 0.69435084

 $00:53:13.486 \longrightarrow 00:53:14.449$ to these agents,

NOTE Confidence: 0.69435084

 $00:53:14.450 \longrightarrow 00:53:16.830$ so it's really in those with left

NOTE Confidence: 0.69435084

 $00:53:16.830 \longrightarrow 00:53:18.868$ sided colon cancers and have no

NOTE Confidence: 0.69435084

 $00:53:18.868 \rightarrow 00:53:21.073$ mutations in these genes where we can

NOTE Confidence: 0.69435084

 $00:53:21.139 \rightarrow 00:53:23.839$ use this in combination with chemotherapy.

NOTE Confidence: 0.69435084

 $00:53:23.840 \longrightarrow 00:53:24.220$ Alternatively,

NOTE Confidence: 0.69435084

 $00:53:24.220 \rightarrow 00:53:25.740$ we have angiogenesis inhibitors,

- NOTE Confidence: 0.69435084
- $00:53:25.740 \longrightarrow 00:53:28.176$ that is the classic one of vast

 $00:53:28.176 \longrightarrow 00:53:30.512$ nervous is a map which itself

NOTE Confidence: 0.69435084

 $00:53:30.512 \longrightarrow 00:53:32.936$ can be used in patients with.

NOTE Confidence: 0.69435084

 $00{:}53{:}32{.}940 \dashrightarrow 00{:}53{:}35{.}817$ These mutations can be used often in

NOTE Confidence: 0.69435084

 $00:53:35.817 \rightarrow 00:53:37.928$ combination with chemotherapy and those

NOTE Confidence: 0.69435084

 $00:53:37.928 \rightarrow 00:53:40.358$ with these aggressive right sided cancers.

NOTE Confidence: 0.69435084

 $00:53:40.360 \longrightarrow 00:53:41.004$ And we,

NOTE Confidence: 0.69435084

00:53:41.004 --> 00:53:41.648 but critically,

NOTE Confidence: 0.69435084

 $00{:}53{:}41{.}648 \dashrightarrow 00{:}53{:}44{.}031$ we need to balance risk and benefit

NOTE Confidence: 0.69435084

 $00{:}53{:}44{.}031 \dashrightarrow 00{:}53{:}46{.}726$ because one of the problems with the

NOTE Confidence: 0.69435084

 $00{:}53{:}46.726 \dashrightarrow 00{:}53{:}48.605$ the angiogenesis inhibitors as they

NOTE Confidence: 0.69435084

 $00{:}53{:}48.605 \dashrightarrow 00{:}53{:}51.034$ carry their own set of side effects.

NOTE Confidence: 0.69435084

 $00:53:51.040 \rightarrow 00:53:52.820$ For instance, hypertension is classic.

NOTE Confidence: 0.69435084

00:53:52.820 --> 00:53:53.864 They develop proteinuria,

NOTE Confidence: 0.69435084

 $00:53:53.864 \rightarrow 00:53:55.256$ and particularly there's a

 $00:53:55.256 \longrightarrow 00:53:56.740$ risk for thrombotic disease.

NOTE Confidence: 0.69435084

00:53:56.740 --> 00:53:58.164 These are small percentages,

NOTE Confidence: 0.69435084

 $00:53:58.164 \rightarrow 00:54:01.009$ but they can be devastating when they occur.

NOTE Confidence: 0.69435084

 $00:54:01.010 \longrightarrow 00:54:02.785$ And there's also the potential

NOTE Confidence: 0.69435084

 $00:54:02.785 \longrightarrow 00:54:04.205$ risk for bowel perforation.

NOTE Confidence: 0.69435084

 $00:54:04.210 \longrightarrow 00:54:05.275$ And most importantly,

NOTE Confidence: 0.69435084

00:54:05.275 --> 00:54:06.695 if you've had surgery,

NOTE Confidence: 0.69435084

 $00{:}54{:}06{.}700 \dashrightarrow 00{:}54{:}09{.}122$ it is critical to wait because these

NOTE Confidence: 0.69435084

 $00{:}54{:}09{.}122 \dashrightarrow 00{:}54{:}11{.}049$ agents actually impair wound healing.

NOTE Confidence: 0.69435084

 $00:54:11.050 \rightarrow 00:54:13.102$ As the mechanism in which they

NOTE Confidence: 0.69435084

 $00{:}54{:}13.102 \dashrightarrow 00{:}54{:}14.470$ were blocking vascular growth,

NOTE Confidence: 0.69435084

 $00{:}54{:}14{.}470 \dashrightarrow 00{:}54{:}16{.}175$ which is central to developing

NOTE Confidence: 0.69435084

 $00:54:16.175 \longrightarrow 00:54:16.857$ effective words,

NOTE Confidence: 0.69435084

 $00:54:16.860 \longrightarrow 00:54:19.468$ and we prefer 6 to 8 weeks prior

NOTE Confidence: 0.69435084

 $00:54:19.468 \longrightarrow 00:54:21.980$ to surgery or 6 to 8 weeks after

NOTE Confidence: 0.69435084

 $00:54:21.980 \rightarrow 00:54:24.405$ surgery to to use these agents and

 $00:54:24.405 \rightarrow 00:54:27.114$ we must be careful in patients who

NOTE Confidence: 0.69435084

 $00{:}54{:}27.120 \dashrightarrow 00{:}54{:}29.269$ are older or have had recent from

NOTE Confidence: 0.69435084

 $00{:}54{:}29{.}269 \dashrightarrow 00{:}54{:}31{.}738$ botic events or we have for instance

NOTE Confidence: 0.69435084

 $00:54:31.738 \rightarrow 00:54:33.958$ metastatic disease to brain with lead.

NOTE Confidence: 0.82500607

 $00:54:36.880 \longrightarrow 00:54:39.256$ And this is an example of the difference

NOTE Confidence: 0.82500607

 $00{:}54{:}39{.}256 \dashrightarrow 00{:}54{:}41{.}139$ between left sided and right sided.

NOTE Confidence: 0.82500607

 $00:54:41.140 \longrightarrow 00:54:43.312$ I'm going to go to the

NOTE Confidence: 0.82500607

 $00:54:43.312 \longrightarrow 00:54:44.760$ here to re sightedness.

NOTE Confidence: 0.82500607

 $00:54:44.760 \longrightarrow 00:54:46.601$ The left and the right side of

NOTE Confidence: 0.82500607

 $00{:}54{:}46{.}601 \dashrightarrow 00{:}54{:}48{.}500$ the colon have different origins.

NOTE Confidence: 0.82500607

00:54:48.500 --> 00:54:49.469 There biologically different,

NOTE Confidence: 0.82500607

 $00{:}54{:}49{.}469 \dashrightarrow 00{:}54{:}50{.}761$ they have different blood

NOTE Confidence: 0.82500607

 $00{:}54{:}50.761 \dashrightarrow 00{:}54{:}51.940$ supplies and interesting Lee.

NOTE Confidence: 0.82500607

 $00{:}54{:}51{.}940 \dashrightarrow 00{:}54{:}53{.}956$ Part of this may reflect they have

NOTE Confidence: 0.82500607

 $00{:}54{:}53{.}956 \dashrightarrow 00{:}54{:}55{.}217$ different composition of bacteria

 $00:54:55.217 \dashrightarrow 00:54:56.927$ and their outcomes are different.

NOTE Confidence: 0.82500607

00:54:56.930 --> 00:54:58.796 Left sided colon cancers more common,

NOTE Confidence: 0.82500607

 $00{:}54{:}58{.}800 \dashrightarrow 00{:}55{:}00{.}534$ they have better prognosis and those

NOTE Confidence: 0.82500607

 $00:55:00.534 \rightarrow 00:55:02.416$ are patients where you can combine

NOTE Confidence: 0.82500607

 $00:55:02.416 \rightarrow 00:55:04.096$ chemotherapy with these EGFR agents.

NOTE Confidence: 0.82500607

00:55:04.100 - 00:55:06.140 If they don't have mutations likes

NOTE Confidence: 0.82500607

 $00{:}55{:}06{.}140 \dashrightarrow 00{:}55{:}08{.}730$ to talk some AB or an attunement.

NOTE Confidence: 0.82500607

 $00:55:08.730 \rightarrow 00:55:10.596$ Right study cancers are more aggressive.

NOTE Confidence: 0.82500607

 $00:55:10.600 \rightarrow 00:55:12.472$ They start at the ****** up

NOTE Confidence: 0.82500607

 $00{:}55{:}12.472 \dashrightarrow 00{:}55{:}13.720$ to the transverse colon.

NOTE Confidence: 0.82500607

00:55:13.720 --> 00:55:15.280 They have higher incidence of

NOTE Confidence: 0.82500607

 $00{:}55{:}15{.}280 \dashrightarrow 00{:}55{:}16{.}528$ these mutations and Interestingly,

NOTE Confidence: 0.82500607

 $00{:}55{:}16{.}530 \dashrightarrow 00{:}55{:}18{.}402$ these are the tumors in addition

NOTE Confidence: 0.82500607

 $00:55:18.402 \longrightarrow 00:55:19.650$ to be more aggressive,

NOTE Confidence: 0.82500607

 $00{:}55{:}19.650 \dashrightarrow 00{:}55{:}21.780$ had this mismatch repair defects.

NOTE Confidence: 0.82500607

 $00:55:21.780 \longrightarrow 00:55:23.180$ It makes them potentially

 $00:55:23.180 \longrightarrow 00:55:24.580$ more vulnerable to Mutare.

NOTE Confidence: 0.82500607

 $00{:}55{:}24.580 \dashrightarrow 00{:}55{:}26.680$ They tend to have worse outcomes

NOTE Confidence: 0.82500607

00:55:26.680 --> 00:55:28.723 and they get, as I mentioned,

NOTE Confidence: 0.82500607

 $00{:}55{:}28{.}723 \dashrightarrow 00{:}55{:}30{.}709$ even with wild type the mutations

NOTE Confidence: 0.82500607

 $00{:}55{:}30{.}709 \dashrightarrow 00{:}55{:}32{.}947$ they don't respond well to these

NOTE Confidence: 0.82500607

 $00{:}55{:}32{.}947 \dashrightarrow 00{:}55{:}34{.}787$ EGFR agents and therefore better

NOTE Confidence: 0.82500607

 $00:55:34.853 \dashrightarrow 00:55:36.875$ system app or the into Genesis

NOTE Confidence: 0.82500607

 $00:55:36.875 \dashrightarrow 00:55:38.834$ inhibitors may be better and this

NOTE Confidence: 0.82500607

 $00{:}55{:}38{.}834 \dashrightarrow 00{:}55{:}40{.}948$ is just an example of the curve

NOTE Confidence: 0.82500607

 $00{:}55{:}40{.}948 \dashrightarrow 00{:}55{:}43{.}624$ here that shows you where the left

NOTE Confidence: 0.82500607

 $00{:}55{:}43.624 \dashrightarrow 00{:}55{:}45.580$ tumors have greater overall survival

NOTE Confidence: 0.82500607

 $00{:}55{:}45{.}580 \dashrightarrow 00{:}55{:}47{.}680$ to the right sided chambers and

NOTE Confidence: 0.82500607

 $00{:}55{:}47{.}680 \dashrightarrow 00{:}55{:}49{.}945$ you can see we generally demarcate NOTE Confidence: 0.82500607

 $00{:}55{:}49{.}945 \dashrightarrow 00{:}55{:}51{.}970$ this around the splenic flexure.

NOTE Confidence: 0.82500607

 $00{:}55{:}51{.}970 \dashrightarrow 00{:}55{:}54{.}172$ Which is where the descending colon

 $00:55:54.172 \rightarrow 00:55:56.800$ begins into the sigmoid and into the *****.

NOTE Confidence: 0.8498616

 $00{:}55{:}59{.}820 \dashrightarrow 00{:}56{:}01{.}127$ And Lastly, it's really

NOTE Confidence: 0.8498616

 $00:56:01.127 \longrightarrow 00:56:03.360$ important to look at the idea of

NOTE Confidence: 0.8498616

 $00{:}56{:}03{.}430 \dashrightarrow 00{:}56{:}05{.}971$ the small percentage of patients who may

NOTE Confidence: 0.8498616

 $00{:}56{:}05{.}971 \dashrightarrow 00{:}56{:}08{.}288$ have these defects in mismatch repair.

NOTE Confidence: 0.8498616

 $00{:}56{:}08.290 \dashrightarrow 00{:}56{:}10.986$ This is a system that's designed to control NOTE Confidence: 0.8498616

00:56:10.986 --> 00:56:13.228 to recognize an correct DNA mutations,

NOTE Confidence: 0.8498616

 $00{:}56{:}13.230 \dashrightarrow 00{:}56{:}15.533$ and when these mutations because of a

NOTE Confidence: 0.8498616

 $00{:}56{:}15{.}533 \dashrightarrow 00{:}56{:}18{.}526$ defect in one of these proteins is abnormal,

NOTE Confidence: 0.8498616

 $00{:}56{:}18.530 \dashrightarrow 00{:}56{:}21.162$ there is an abnormal and more rapid

NOTE Confidence: 0.8498616

 $00{:}56{:}21.162 \dashrightarrow 00{:}56{:}22.984$ accumulation of mutations and errors

NOTE Confidence: 0.8498616

 $00:56:22.984 \longrightarrow 00:56:24.880$ within the DNA of these cells.

NOTE Confidence: 0.8498616

 $00:56:24.880 \longrightarrow 00:56:27.841$ A surrogate for this is a thing

NOTE Confidence: 0.8498616

 $00:56:27.841 \rightarrow 00:56:29.110$ called microsatellite instability

NOTE Confidence: 0.8498616

 $00:56:29.180 \longrightarrow 00:56:31.070$ and it may occur in three to.

NOTE Confidence: 0.8498616

 $00:56:31.070 \longrightarrow 00:56:33.470 \ 6.5\%$ but in fact it may be higher

- NOTE Confidence: 0.8498616
- $00:56:33.470 \longrightarrow 00:56:36.237$ if we look at larger populations,

 $00:56:36.240 \longrightarrow 00:56:38.585$ and this leads to because of the

NOTE Confidence: 0.8498616

00:56:38.585 --> 00:56:40.300 inability to repair mutations,

NOTE Confidence: 0.8498616

00:56:40.300 --> 00:56:41.106 mutation birds,

NOTE Confidence: 0.8498616

 $00:56:41.106 \rightarrow 00:56:43.524$ some of these mutations will generate

NOTE Confidence: 0.8498616

 $00{:}56{:}43{.}524 \dashrightarrow 00{:}56{:}45{.}650$ proteins that are abnormal and the

NOTE Confidence: 0.8498616

00:56:45.650 - 00:56:47.528 body will see these as antigens

NOTE Confidence: 0.8498616

 $00{:}56{:}47{.}592 \dashrightarrow 00{:}56{:}49{.}517$ and generate an immune response.

NOTE Confidence: 0.8498616

00:56:49.520 - 00:56:51.370 Now Fortunately when that occurs,

NOTE Confidence: 0.8498616

 $00{:}56{:}51{.}370 \dashrightarrow 00{:}56{:}53{.}986$ the natural response of the body is to

NOTE Confidence: 0.8498616

 $00{:}56{:}53{.}986 \dashrightarrow 00{:}56{:}56{.}897$ say we don't want an immune response.

NOTE Confidence: 0.8498616

 $00{:}56{:}56{.}900 \dashrightarrow 00{:}56{:}59{.}301$ We want to turn this off because

NOTE Confidence: 0.8498616

00:56:59.301 --> 00:57:01.689 it is seen as autoimmunity.

NOTE Confidence: 0.8498616

 $00{:}57{:}01.690 \dashrightarrow 00{:}57{:}04.483$ And it generates to lerance to these to

NOTE Confidence: 0.8498616

 $00{:}57{:}04{.}483 \dashrightarrow 00{:}57{:}07{.}107$ this and therefore you get inhibition

- $00:57:07.107 \rightarrow 00:57:10.250$ through what is called the checkpoint system.
- NOTE Confidence: 0.8498616
- $00{:}57{:}10.250 \dashrightarrow 00{:}57{:}12.118$ And these patients, therefore,
- NOTE Confidence: 0.8498616
- $00{:}57{:}12.118 \dashrightarrow 00{:}57{:}14.453$ when they have this feature.
- NOTE Confidence: 0.8498616
- $00{:}57{:}14.460 \dashrightarrow 00{:}57{:}15.920$ They're either mismatch repair,
- NOTE Confidence: 0.8498616
- 00:57:15.920 --> 00:57:16.650 defective deficient,
- NOTE Confidence: 0.8498616
- 00:57:16.650 00:57:18.840 or they have high Ms I,
- NOTE Confidence: 0.8498616
- 00:57:18.840 --> 00:57:20.922 as an alternative way of looking
- NOTE Confidence: 0.8498616
- $00:57:20.922 \longrightarrow 00:57:23.245$ at this are very sensitive to
- NOTE Confidence: 0.8498616
- 00:57:23.245 --> 00:57:25.837 inhibition of this checkpoint and a
- NOTE Confidence: 0.8498616
- $00:57:25.837 \rightarrow 00:57:28.326$ good example of this is the key no.
- NOTE Confidence: 0.8498616
- $00:57:28.330 \longrightarrow 00:57:30.015$ 177 trial where first line
- NOTE Confidence: 0.8498616
- $00:57:30.015 \rightarrow 00:57:31.363$ immunotherapy for metastatic cancer
- NOTE Confidence: 0.8498616
- $00:57:31.363 \rightarrow 00:57:33.438$ was more effective than chemotherapy.
- NOTE Confidence: 0.8498616
- $00:57:33.440 \longrightarrow 00:57:35.463$ And I'll show you just a little
- NOTE Confidence: 0.8498616
- $00:57:35.463 \longrightarrow 00:57:38.073$ bit of a slide about how this is
- NOTE Confidence: 0.8498616
- $00:57:38.073 \rightarrow 00:57:40.408$ just an example of how these

- NOTE Confidence: 0.8498616
- $00:57:40.408 \longrightarrow 00:57:42.199$ checkpoint inhibitors work.

 $00{:}57{:}42.200 \dashrightarrow 00{:}57{:}44.090$ The cancer cell through these

NOTE Confidence: 0.8498616

 $00{:}57{:}44.090 \dashrightarrow 00{:}57{:}45.980$ increased mutations shows an antigen.

NOTE Confidence: 0.8498616

 $00:57:45.980 \longrightarrow 00:57:48.895$ The T cell cytotoxic T

NOTE Confidence: 0.8498616

 $00{:}57{:}48.895 \dashrightarrow 00{:}57{:}51.227$ cell that attacks that.

NOTE Confidence: 0.8498616

 $00{:}57{:}51{.}230 \dashrightarrow 00{:}57{:}53{.}342$ That is initially going to try

NOTE Confidence: 0.8498616

 $00:57:53.342 \rightarrow 00:57:55.160$ to destroy the cancer cell,

NOTE Confidence: 0.8498616

 $00:57:55.160 \rightarrow 00:57:57.659$ but the cancer cell puts up this.

NOTE Confidence: 0.8498616

 $00:57:57.660 \longrightarrow 00:57:58.911$ This protective molecule,

NOTE Confidence: 0.8498616

 $00{:}57{:}58{.}911 \dashrightarrow 00{:}58{:}01{.}830$ called PDL one and PDL one therefore

NOTE Confidence: 0.8498616

 $00{:}58{:}01{.}906 \dashrightarrow 00{:}58{:}04{.}264$ binds to PD one on the T cell and

NOTE Confidence: 0.8498616

 $00{:}58{:}04{.}264 \dashrightarrow 00{:}58{:}06{.}218$ turns off the immune response.

NOTE Confidence: 0.8498616

 $00{:}58{:}06{.}220 \dashrightarrow 00{:}58{:}08{.}056$ It's a very natural process that

NOTE Confidence: 0.8498616

00:58:08.056 --> 00:58:10.209 the that the immune system does

NOTE Confidence: 0.8498616

 $00{:}58{:}10.209 \dashrightarrow 00{:}58{:}11.937$ to protect against autoimmunity.

 $00{:}58{:}11{.}940 \dashrightarrow 00{:}58{:}14{.}476$ But we can do do when this occurs

NOTE Confidence: 0.8498616

 $00{:}58{:}14.476 \dashrightarrow 00{:}58{:}17.255$ and there is a immune response to

NOTE Confidence: 0.8498616

 $00{:}58{:}17.255 \dashrightarrow 00{:}58{:}19.320$ cancers with these high mutation

NOTE Confidence: 0.8498616

 $00:58:19.401 \dashrightarrow 00:58:22.057$ rates we can come in and block that.

NOTE Confidence: 0.8498616

 $00{:}58{:}22.060 \dashrightarrow 00{:}58{:}24.699$ PDL one with an animal with a

NOTE Confidence: 0.8498616

 $00{:}58{:}24.699 \dashrightarrow 00{:}58{:}26.506$ inhibitor called a checkpoint

NOTE Confidence: 0.8498616

 $00{:}58{:}26{.}506 \dashrightarrow 00{:}58{:}29{.}491$ inhibitor and block that inhibition

NOTE Confidence: 0.8498616

 $00:58:29.491 \rightarrow 00:58:31.879$ activate the immune response.

NOTE Confidence: 0.8498616

00:58:31.880 --> 00:58:34.736 And this is an example of the curve

NOTE Confidence: 0.8498616

 $00{:}58{:}34{.}736 \dashrightarrow 00{:}58{:}37{.}072$ that happened when they use this

NOTE Confidence: 0.8498616

 $00{:}58{:}37{.}072 \dashrightarrow 00{:}58{:}39{.}388$ as first line the rapy for patients

NOTE Confidence: 0.8498616

 $00{:}58{:}39{.}468 \dashrightarrow 00{:}58{:}42{.}624$ who had deficient micro settle MMR

NOTE Confidence: 0.8498616

 $00{:}58{:}42.624 \dashrightarrow 00{:}58{:}44.202$ or microsatellite instability.

NOTE Confidence: 0.8498616

 $00:58:44.210 \longrightarrow 00:58:46.754$ Who had this high mutation rate

NOTE Confidence: 0.8498616

 $00{:}58{:}46{.}754 \dashrightarrow 00{:}58{:}48{.}740$ in this mismatch? Repair defects.

NOTE Confidence: 0.8498616

 $00:58:48.740 \rightarrow 00:58:51.580$ And what you see here in the green

 $00:58:51.654 \rightarrow 00:58:54.168$ are the patients who were simply

NOTE Confidence: 0.8498616

 $00{:}58{:}54{.}168 \dashrightarrow 00{:}58{:}56{.}284$ given a single monotherapy with

NOTE Confidence: 0.8498616

 $00:58:56.284 \rightarrow 00:58:58.119$ the this Pember Lizum app,

NOTE Confidence: 0.8498616

 $00:58:58.120 \dashrightarrow 00:59:00.626$ which is a checkpoint inhibitor at it,

NOTE Confidence: 0.8498616

 $00{:}59{:}00{.}630 \dashrightarrow 00{:}59{:}02{.}002$ markedly improved response rate

NOTE Confidence: 0.8498616

 $00{:}59{:}02{.}002 \dashrightarrow 00{:}59{:}04{.}474$ and what we see in this that's

NOTE Confidence: 0.8498616

 $00{:}59{:}04{.}474 \dashrightarrow 00{:}59{:}06{.}532$ not true for most other the rapies

NOTE Confidence: 0.8498616

 $00:59:06.532 \rightarrow 00:59:08.784$ is a continued response that may

NOTE Confidence: 0.8498616

 $00:59:08.784 \longrightarrow 00:59:10.320$ extend beyond five years,

NOTE Confidence: 0.8498616

 $00{:}59{:}10.320 \dashrightarrow 00{:}59{:}12.644$ so a portion of these patients will

NOTE Confidence: 0.8498616

 $00{:}59{:}12.644 \dashrightarrow 00{:}59{:}14.270$ actually have extended responses.

NOTE Confidence: 0.8498616

 $00{:}59{:}14.270 \dashrightarrow 00{:}59{:}16.070$ We've heard this is KEYTRUDA,

NOTE Confidence: 0.852451

 $00:59:16.070 \rightarrow 00:59:20.074$ as many of you may have heard.

NOTE Confidence: 0.852451

00:59:20.080 --> 00:59:22.306 So just as as a summary,

NOTE Confidence: 0.852451

 $00{:}59{:}22{.}310 \dashrightarrow 00{:}59{:}24{.}900$ if you look at this first line,

 $00:59:24.900 \rightarrow 00:59:27.126$ therapy options include in metastatic cancer.

NOTE Confidence: 0.852451

 $00:59:27.130 \longrightarrow 00:59:29.356$ In those that have be raft,

NOTE Confidence: 0.852451

 $00:59:29.360 \longrightarrow 00:59:32.018$ mutations or interest.

NOTE Confidence: 0.852451

 $00:59:32.020 \rightarrow 00:59:33.708$ Mutations chemotherapy with bevacizumab.

NOTE Confidence: 0.852451

 $00{:}59{:}33.708 \dashrightarrow 00{:}59{:}36.770$ Those who have left sided colon cancers.

NOTE Confidence: 0.852451

 $00{:}59{:}36{.}770 \dashrightarrow 00{:}59{:}40{.}268$ We will often use epidermal growth

NOTE Confidence: 0.852451

 $00{:}59{:}40{.}268 \dashrightarrow 00{:}59{:}43{.}918$ factor inhibitors like some tucks map or.

NOTE Confidence: 0.852451

 $00:59:43.920 \longrightarrow 00:59:45.936$ His parents had a tumor map.

NOTE Confidence: 0.852451

 $00{:}59{:}45{.}940 \dashrightarrow 00{:}59{:}47{.}950$ If they have right sided cancers,

NOTE Confidence: 0.852451

 $00:59:47.950 \longrightarrow 00:59:49.630$ even if their wild type,

NOTE Confidence: 0.852451

 $00:59:49.630 \longrightarrow 00:59:51.310$ we still give potentially bevacizumab

NOTE Confidence: 0.852451

 $00:59:51.310 \longrightarrow 00:59:52.990$ and then at future therapy,

NOTE Confidence: 0.852451

00:59:52.990 --> 00:59:55.006 if you have very aggressive disease,

NOTE Confidence: 0.852451

 $00:59:55.010 \rightarrow 00:59:57.355$ who may combine all of those agents,

NOTE Confidence: 0.852451

00:59:57.360 --> 00:59:59.080 this sort of shows you

NOTE Confidence: 0.852451

 $00:59:59.080 \longrightarrow 01:00:00.456$ that we continue therapy.

- NOTE Confidence: 0.852451
- $01:00:00.460 \rightarrow 01:00:03.676$ The Beyond first line in the second line,

 $01{:}00{:}03.680 \dashrightarrow 01{:}00{:}05.695$ we may alternate the therapy

NOTE Confidence: 0.852451

01:00:05.695 --> 01:00:07.710 backbone if you've had folfox,

NOTE Confidence: 0.852451

 $01:00:07.710 \longrightarrow 01:00:10.128$ we may switch to full fury.

NOTE Confidence: 0.852451

 $01:00:10.130 \longrightarrow 01:00:11.935$ We may use alternative options

NOTE Confidence: 0.852451

 $01:00:11.935 \longrightarrow 01:00:13.740$ beyond that combined with an

NOTE Confidence: 0.852451

01:00:13.808 --> 01:00:15.768 anti Andrew Genesis bevacizumab.

NOTE Confidence: 0.852451

 $01:00:15.770 \rightarrow 01:00:18.248$ If tolerated well may continue into

NOTE Confidence: 0.852451

 $01{:}00{:}18.248 \dashrightarrow 01{:}00{:}21.105$ second line and even beyond that and

NOTE Confidence: 0.852451

01:00:21.105 --> 01:00:23.737 there are even newer agents that we

NOTE Confidence: 0.852451

 $01{:}00{:}23.815 \dashrightarrow 01{:}00{:}26.245$ have that are available based on,

NOTE Confidence: 0.852451

01:00:26.250 --> 01:00:29.148 you know the more recent research and

NOTE Confidence: 0.852451

 $01{:}00{:}29.148 \dashrightarrow 01{:}00{:}31.588$ most importantly just remember we can.

NOTE Confidence: 0.852451

01:00:31.590 --> 01:00:32.362 On occasion,

NOTE Confidence: 0.852451

 $01:00:32.362 \longrightarrow 01:00:34.292$ in small numbers of patients

- $01:00:34.292 \rightarrow 01:00:36.240$ who develop attic metastasis,
- NOTE Confidence: 0.852451
- $01:00:36.240 \longrightarrow 01:00:38.778$ a small percentage may be resectable.
- NOTE Confidence: 0.852451
- $01:00:38.780 \longrightarrow 01:00:41.318$ Those recur later on with only
- NOTE Confidence: 0.852451
- $01:00:41.318 \longrightarrow 01:00:42.164$ liver metastasis,
- NOTE Confidence: 0.852451
- $01{:}00{:}42.170 \dashrightarrow 01{:}00{:}44.744$ may be resectable those who are diagnosed
- NOTE Confidence: 0.852451
- $01{:}00{:}44.744 \dashrightarrow 01{:}00{:}47.239$ with metastatic cancer at the origin.
- NOTE Confidence: 0.852451
- $01:00:47.240 \longrightarrow 01:00:48.748$ We often give chemotherapy,
- NOTE Confidence: 0.852451
- $01:00:48.748 \rightarrow 01:00:51.566$ and some of those may be salvageable
- NOTE Confidence: 0.852451
- $01{:}00{:}51{.}566 \dashrightarrow 01{:}00{:}54{.}428$ with with surgery and have longer,
- NOTE Confidence: 0.852451
- $01:00:54.430 \longrightarrow 01:00:56.450$ survivals, and sometimes cures.
- NOTE Confidence: 0.852451
- $01{:}00{:}56{.}450 \dashrightarrow 01{:}01{:}00{.}620$ So we always look for that possibility.
- NOTE Confidence: 0.852451
- 01:01:00.620 --> 01:01:03.635 I think that may cover most of what I. NOTE Confidence: 0.88950735
- NOTE Confidence: 0.88950755
- 01:01:05.860 --> 01:01:07.463 Unless you want me to talk about
- NOTE Confidence: 0.88950735
- $01:01:07.463 \rightarrow 01:01:09.273$ the last thing that I always think
- NOTE Confidence: 0.88950735
- 01:01:09.273 --> 01:01:11.830 is important, what can you do?
- NOTE Confidence: 0.88950735
- 01:01:11.830 --> 01:01:13.894 I just want to remind people

- NOTE Confidence: 0.88950735
- $01:01:13.894 \rightarrow 01:01:15.900$ the top line physical therapy,
- NOTE Confidence: 0.88950735
- 01:01:15.900 --> 01:01:16.760 physical activity.
- NOTE Confidence: 0.88950735
- 01:01:16.760 --> 01:01:19.340 After diagnosis improves outcome and I
- NOTE Confidence: 0.88950735
- $01:01:19.340 \longrightarrow 01:01:22.292$ want to show you that this one slide
- NOTE Confidence: 0.88950735
- $01{:}01{:}22.292 \dashrightarrow 01{:}01{:}24.948$ prudent diet vitamin D has been shown NOTE Confidence: 0.88950735
- $01:01:24.948 \rightarrow 01:01:27.420$ to be potentially beneficial in survival.
- NOTE Confidence: 0.88950735
- $01:01:27.420 \longrightarrow 01:01:29.652$ But this is interesting if you
- NOTE Confidence: 0.88950735
- $01{:}01{:}29.652 \dashrightarrow 01{:}01{:}31.140$ start exercise after diagnosis
- NOTE Confidence: 0.88950735
- $01{:}01{:}31{.}207 \dashrightarrow 01{:}01{:}33{.}037$ and you always account potato.
- NOTE Confidence: 0.88950735
- $01:01:33.040 \rightarrow 01:01:35.290$ This is an earlier stage disease.
- NOTE Confidence: 0.88950735
- 01:01:35.290 --> 01:01:37.830 It reduces mortality and recurrence.
- NOTE Confidence: 0.88950735
- 01:01:37.830 --> 01:01:39.695 If you increase your physical
- NOTE Confidence: 0.88950735
- $01:01:39.695 \rightarrow 01:01:41.187$ activity with metastatic cancer,
- NOTE Confidence: 0.88950735
- 01:01:41.190 --> 01:01:42.550 your survival will improve,
- NOTE Confidence: 0.88950735
- $01:01:42.550 \rightarrow 01:01:45.290$ so it's an adjunct to your treatment.
- NOTE Confidence: 0.88950735

- $01:01:45.290 \longrightarrow 01:01:47.160$ And it also, we know,
- NOTE Confidence: 0.88950735
- 01:01:47.160 01:01:48.636 helps to tolerate therapy.
- NOTE Confidence: 0.88950735
- $01:01:48.636 \rightarrow 01:01:50.850$ So be physically active during this
- NOTE Confidence: 0.88950735
- $01:01:50.915 \rightarrow 01:01:53.117$ long period when you're on treatment,
- NOTE Confidence: 0.88950735
- $01:01:53.120 \longrightarrow 01:01:55.556$ and with each new therapy we can
- NOTE Confidence: 0.88950735
- $01{:}01{:}55{.}556$ --> $01{:}01{:}57{.}968$ prolong and extend long term survival. NOTE Confidence: 0.8640324
- 01:02:01.680 --> 01:02:03.966 Thank you Doctor Boy that's great,
- NOTE Confidence: 0.8640324
- 01:02:03.970 --> 01:02:07.010 so if you can can share your screen,
- NOTE Confidence: 0.8640324
- $01{:}02{:}07{.}010 \dashrightarrow 01{:}02{:}09{.}296$ that would be wonderful and perfect.
- NOTE Confidence: 0.8640324
- $01:02:09.300 \longrightarrow 01:02:11.708$ That's great so we have a little
- NOTE Confidence: 0.8640324
- $01{:}02{:}11.708 \dashrightarrow 01{:}02{:}14.627$ bit of time remaining for some Q&A.
- NOTE Confidence: 0.8640324
- $01:02:14.630 \longrightarrow 01:02:16.535$ We will continue a little
- NOTE Confidence: 0.8640324
- $01:02:16.535 \longrightarrow 01:02:18.440$ bit where we left off,
- NOTE Confidence: 0.8640324
- 01:02:18.440 --> 01:02:21.107 and I think that so Doctor Lee.
- NOTE Confidence: 0.8640324
- $01:02:21.110 \longrightarrow 01:02:23.998$ I don't think we got to finish the
- NOTE Confidence: 0.8640324
- $01:02:23.998 \rightarrow 01:02:26.447$ question that we were talking about,

- NOTE Confidence: 0.8640324
- $01:02:26.450 \longrightarrow 01:02:28.046$ so I'll just read.
- NOTE Confidence: 0.8640324
- $01:02:28.046 \rightarrow 01:02:31.020$ Maybe I'll rephrase the question just so that
- NOTE Confidence: 0.8640324
- $01:02:31.020 \longrightarrow 01:02:32.920$ the surgery 30 lymph nodes.
- NOTE Confidence: 0.85373616
- 01:02:33.630 --> 01:02:35.597 Yes, exactly. And and when do you?
- NOTE Confidence: 0.85373616
- $01:02:35.600 \rightarrow 01:02:37.292$ When do you consider giving chemotherapy
- NOTE Confidence: 0.85373616
- 01:02:37.292 --> 01:02:39.268 in that situation? So I mean, it's
- NOTE Confidence: 0.85373616
- $01:02:39.270 \rightarrow 01:02:40.956$ a great question. In some ways,
- NOTE Confidence: 0.85373616
- $01:02:40.960 \longrightarrow 01:02:42.646$ it's sort of a trick question.
- NOTE Confidence: 0.85373616
- 01:02:42.650 --> 01:02:44.906 He says. Well, yes, all that was done,
- NOTE Confidence: 0.85373616
- $01:02:44.910 \longrightarrow 01:02:46.428$ or what did they find at
- NOTE Confidence: 0.85373616
- $01:02:46.428 \longrightarrow 01:02:48.010$ the time of the surgery?
- NOTE Confidence: 0.85373616
- $01{:}02{:}48.010 \dashrightarrow 01{:}02{:}49.984$ And that's in part of my talk.
- NOTE Confidence: 0.85373616
- $01:02:49.990 \longrightarrow 01:02:51.957$ That's what I touched upon that yes,
- NOTE Confidence: 0.85373616
- 01:02:51.960 --> 01:02:53.703 you had all those lymph nodes taken
- NOTE Confidence: 0.85373616
- $01{:}02{:}53.703 \dashrightarrow 01{:}02{:}55.815$ out and the importance of being all
- NOTE Confidence: 0.85373616

01:02:55.815 --> 01:02:57.825 those ******* I think have already been

NOTE Confidence: 0.85373616

 $01:02:57.825 \longrightarrow 01:02:59.518$ addressed because of the importance of

NOTE Confidence: 0.85373616

 $01{:}02{:}59{.}518 \dashrightarrow 01{:}03{:}01{.}270$ determining whether the cancer is regional.

NOTE Confidence: 0.85373616

 $01:03:01.270 \rightarrow 01:03:03.237$ Mattis said the lymph nodes are involved.

NOTE Confidence: 0.85373616

 $01:03:03.240 \longrightarrow 01:03:04.548$ We have to remove.

NOTE Confidence: 0.85373616

01:03:04.548 --> 01:03:05.529 At least 12.

NOTE Confidence: 0.85373616

01:03:05.530 --> 01:03:07.010 Preferably more lymph nodes,

NOTE Confidence: 0.85373616

 $01:03:07.010 \longrightarrow 01:03:09.230$ to make sure that we actually

NOTE Confidence: 0.85373616

01:03:09.300 --> 01:03:11.214 have an early stage disease at

NOTE Confidence: 0.85373616

 $01:03:11.214 \rightarrow 01:03:13.389$ the lymph nodes are not involved.

NOTE Confidence: 0.85373616

 $01{:}03{:}13{.}390 \dashrightarrow 01{:}03{:}15{.}875$ So out of those started lymph nodes.

NOTE Confidence: 0.85373616

 $01:03:15.880 \rightarrow 01:03:17.692$ If you know a significant let's

NOTE Confidence: 0.85373616

 $01{:}03{:}17.692 \dashrightarrow 01{:}03{:}19.641$ let's have a have involvement then

NOTE Confidence: 0.85373616

01:03:19.641 $\operatorname{-->}$ 01:03:22.014 I think you know that person should

NOTE Confidence: 0.85373616

 $01:03:22.014 \rightarrow 01:03:24.447$ be advised to consider chemotherapy.

NOTE Confidence: 0.85373616

 $01:03:24.450 \longrightarrow 01:03:26.586$ I've been a 30 by there,

- NOTE Confidence: 0.85373616
- $01:03:26.590 \rightarrow 01:03:28.774$ but I think the question mean plus
- NOTE Confidence: 0.85373616
- $01:03:28.774 \longrightarrow 01:03:31.362$ 39 plus are removed and none are
- NOTE Confidence: 0.85373616
- $01:03:31.362 \rightarrow 01:03:33.726$ positive that there are all negative.
- NOTE Confidence: 0.85373616
- $01:03:33.730 \longrightarrow 01:03:36.404$ So then he really comes down to.
- NOTE Confidence: 0.85373616
- $01{:}03{:}36{.}410 \dashrightarrow 01{:}03{:}38{.}846$ You know the features that I mentioned.
- NOTE Confidence: 0.85373616
- 01:03:38.850 --> 01:03:40.250 You know it's a.
- NOTE Confidence: 0.85373616
- 01:03:40.250 --> 01:03:40.950 It's then,
- NOTE Confidence: 0.85373616
- $01:03:40.950 \longrightarrow 01:03:43.044$ by definition is a stage one
- NOTE Confidence: 0.85373616
- 01:03:43.044 --> 01:03:44.440 or stage two disease,
- NOTE Confidence: 0.85373616
- $01:03:44.440 \longrightarrow 01:03:46.165$ and are there any microscopic
- NOTE Confidence: 0.85373616
- $01:03:46.165 \longrightarrow 01:03:47.890$ feature about the cancer that
- NOTE Confidence: 0.85373616
- $01{:}03{:}47{.}949 \dashrightarrow 01{:}03{:}49{.}729$ makes us particularly worry that
- NOTE Confidence: 0.85373616
- $01:03:49.729 \rightarrow 01:03:51.909$ this person against the odds right
- NOTE Confidence: 0.85373616
- $01{:}03{:}51{.}909 \dashrightarrow 01{:}03{:}53{.}907$ against the odds will have recurrent
- NOTE Confidence: 0.85373616
- $01:03:53.907 \rightarrow 01:03:55.756$ disease in the next five years?
- NOTE Confidence: 0.85373616

 $01:03:55.756 \longrightarrow 01:03:57.448$ And I think that's what goes

NOTE Confidence: 0.85373616

 $01{:}03{:}57{.}448 \dashrightarrow 01{:}03{:}59{.}491$ into making a decision about

NOTE Confidence: 0.85373616

 $01:03:59.491 \rightarrow 01:04:01.187$ recommending or considering therapy,

NOTE Confidence: 0.85373616

 $01{:}04{:}01{.}190 \dashrightarrow 01{:}04{:}04{.}322$ and I like to hear Doctor insist on that.

NOTE Confidence: 0.8607177

01:04:04.930 --> 01:04:06.958 Yeah, thanks Doctor Lee. Yes no.

NOTE Confidence: 0.8607177

01:04:06.960 --> 01:04:09.319 I mean I think that I answered

NOTE Confidence: 0.8607177

 $01{:}04{:}09{.}319 \dashrightarrow 01{:}04{:}11{.}348$ a little bit in the chat,

NOTE Confidence: 0.8607177

01:04:11.350 --> 01:04:12.514 but it's you know,

NOTE Confidence: 0.8607177

 $01{:}04{:}12.514 \dashrightarrow 01{:}04{:}14.260$ we really tailor our answers to

NOTE Confidence: 0.8607177

 $01{:}04{:}14{.}318 \dashrightarrow 01{:}04{:}16{.}148$ the individual patient and that

NOTE Confidence: 0.8607177

 $01:04:16.148 \rightarrow 01:04:18.450$ determine is determined by many things.

NOTE Confidence: 0.8607177

 $01:04:18.450 \longrightarrow 01:04:20.230$ It's determined by what their

NOTE Confidence: 0.8607177

 $01{:}04{:}20{.}230 \dashrightarrow 01{:}04{:}22{.}010$ pathologist see under the microscope

NOTE Confidence: 0.8607177

 $01{:}04{:}22.065 \dashrightarrow 01{:}04{:}24.179$ in terms of other high risk features

NOTE Confidence: 0.8607177

 $01:04:24.179 \longrightarrow 01:04:26.218$ that may predispose to cancer spreading.

NOTE Confidence: 0.8607177

 $01:04:26.220 \rightarrow 01:04:28.586$ It depends on the patient's age and

- NOTE Confidence: 0.8607177
- $01{:}04{:}28.586$ --> $01{:}04{:}30.280$ other medical conditions and health.
- NOTE Confidence: 0.8607177
- $01:04:30.280 \longrightarrow 01:04:32.302$ So it depends on how they
- NOTE Confidence: 0.8607177
- $01:04:32.302 \rightarrow 01:04:33.313$ recover from surgery.
- NOTE Confidence: 0.8607177
- $01:04:33.320 \rightarrow 01:04:36.216$ So it's I think it's really shared decision
- NOTE Confidence: 0.8607177
- $01{:}04{:}36{.}216 \dashrightarrow 01{:}04{:}39{.}018$ making and I think that's something that.
- NOTE Confidence: 0.8607177
- $01{:}04{:}39{.}020 \dashrightarrow 01{:}04{:}41{.}547$ We as a team really talked about
- NOTE Confidence: 0.8607177
- $01:04:41.547 \longrightarrow 01:04:44.189$ quite a bit with the patients.
- NOTE Confidence: 0.8607177
- 01:04:44.190 --> 01:04:46.670 So I'm going to turn to Doctor your
- NOTE Confidence: 0.8607177
- $01{:}04{:}46.670 \dashrightarrow 01{:}04{:}49.126$ and with a couple of questions so,
- NOTE Confidence: 0.8607177
- $01:04:49.130 \longrightarrow 01:04:52.420$ so this has been I guess I have a few,
- NOTE Confidence: 0.8607177
- $01:04:52.420 \longrightarrow 01:04:54.060$ but I'll start with cotton.
- NOTE Confidence: 0.8607177
- $01{:}04{:}54{.}060 \dashrightarrow 01{:}04{:}56{.}028$ So a year where you know,
- NOTE Confidence: 0.8607177
- $01{:}04{:}56{.}030 \dashrightarrow 01{:}04{:}58{.}640$ we've certainly seen disparities in care.
- NOTE Confidence: 0.8607177
- $01{:}04{:}58.640 \dashrightarrow 01{:}05{:}00.810$ And I'm wondering if you can comment
- NOTE Confidence: 0.8607177
- 01:05:00.810 --> 01:05:03.747 some on how we know that you know I'd NOTE Confidence: 0.8607177

 $01:05:03.747 \rightarrow 01:05:05.973$ say our black population is especially

NOTE Confidence: 0.8607177

01:05:05.973 --> 01:05:08.138 at increased risk for developing

NOTE Confidence: 0.8607177

 $01{:}05{:}08{.}138 \dashrightarrow 01{:}05{:}10{.}481$ colorectal cancer an at earlier ages.

NOTE Confidence: 0.8607177

 $01:05:10.481 \longrightarrow 01:05:12.563$ Can you comment on that and

NOTE Confidence: 0.8607177

 $01:05:12.563 \rightarrow 01:05:14.477$ what we're doing about it?

NOTE Confidence: 0.8264596

 $01{:}05{:}15.640 \dashrightarrow 01{:}05{:}17.420$ Yeah, so yeah, certainly I'm.

NOTE Confidence: 0.8264596

 $01{:}05{:}17{.}420 \dashrightarrow 01{:}05{:}20{.}450$ It's been a good year to bring up a lot

NOTE Confidence: 0.8264596

 $01:05:20.529 \longrightarrow 01:05:23.462$ of the disparities that we've seen for

NOTE Confidence: 0.8264596

 $01{:}05{:}23.462 \dashrightarrow 01{:}05{:}26.435$ many many years and and in many ways NOTE Confidence: 0.8264596

01:05:26.435 --> 01:05:29.096 we just have not been able to tackle

NOTE Confidence: 0.8264596

 $01{:}05{:}29.096 \dashrightarrow 01{:}05{:}31.490$ an understanding them is is key to

NOTE Confidence: 0.8264596

 $01:05:31.562 \rightarrow 01:05:33.858$ really be able to do something about NOTE Confidence: 0.8264596

NOTE Confidence: 0.8204590

 $01{:}05{:}33.858 \dashrightarrow 01{:}05{:}36.590$ it when it comes to early answered.

NOTE Confidence: 0.8264596

01:05:36.590 --> 01:05:38.697 Again, for for years and years we've

NOTE Confidence: 0.8264596

 $01{:}05{:}38.697 \dashrightarrow 01{:}05{:}40.519$ seen those the African Americans

NOTE Confidence: 0.8264596

 $01{:}05{:}40{.}519$ --> $01{:}05{:}42{.}223$ were developing colorectal cancer

- NOTE Confidence: 0.8264596
- $01{:}05{:}42.223 \dashrightarrow 01{:}05{:}44.983$ younger ages and and some of the

 $01:05:44.983 \longrightarrow 01:05:46.643$ factors that we mentioned before.

NOTE Confidence: 0.8264596

 $01:05:46.650 \rightarrow 01:05:48.380$ Seem to play a role,

NOTE Confidence: 0.8264596

 $01:05:48.380 \rightarrow 01:05:50.450$ but we are missing some information.

NOTE Confidence: 0.8264596

 $01:05:50.450 \rightarrow 01:05:52.520$ We clearly are missing some information,

NOTE Confidence: 0.8264596

 $01:05:52.520 \rightarrow 01:05:53.200$ probably toxics,

NOTE Confidence: 0.8264596

 $01:05:53.200 \longrightarrow 01:05:54.900$ probably chemicals that were not

NOTE Confidence: 0.8264596

 $01:05:54.900 \rightarrow 01:05:56.660$ really unclear about their affects.

NOTE Confidence: 0.8264596

 $01{:}05{:}56{.}660 \dashrightarrow 01{:}05{:}58{.}880$ The information that we have regarding

NOTE Confidence: 0.8264596

 $01:05:58.880 \longrightarrow 01:06:01.356$ the risk factors just not does not

NOTE Confidence: 0.8264596

 $01{:}06{:}01{.}356 \dashrightarrow 01{:}06{:}03{.}210$ add up to the entire difference,

NOTE Confidence: 0.8264596

 $01{:}06{:}03.210 \dashrightarrow 01{:}06{:}05.534$ so there are some things that are

NOTE Confidence: 0.8264596

 $01:06:05.534 \rightarrow 01:06:08.134$ still missing and and so we need to

NOTE Confidence: 0.8264596

 $01{:}06{:}08{.}134 \dashrightarrow 01{:}06{:}10{.}128$ understand better in order to tackle

NOTE Confidence: 0.8264596

 $01{:}06{:}10.128 \dashrightarrow 01{:}06{:}12.865$ things we need to understand them better.

- $01:06:12.870 \rightarrow 01:06:15.012$ We need to study them better where
- NOTE Confidence: 0.8264596
- $01{:}06{:}15{.}012 \dashrightarrow 01{:}06{:}17{.}438$ the roots of those differences are.
- NOTE Confidence: 0.8264596
- 01:06:17.440 --> 01:06:18.208 And really,
- NOTE Confidence: 0.8264596
- $01{:}06{:}18.208 \dashrightarrow 01{:}06{:}20.128$ making a deliberate effort to
- NOTE Confidence: 0.8264596
- 01:06:20.128 --> 01:06:21.280 really tackle them,
- NOTE Confidence: 0.8264596
- $01{:}06{:}21{.}280 \dashrightarrow 01{:}06{:}23{.}646$ and I think that it's we're long
- NOTE Confidence: 0.8264596
- $01:06:23.646 \rightarrow 01:06:26.028$ overdue for that and hopefully will
- NOTE Confidence: 0.8264596
- $01{:}06{:}26.028$ --> $01{:}06{:}28.183$ make a difference starting now.
- NOTE Confidence: 0.8670272
- 01:06:28.820 --> 01:06:30.270 Yep, Yep, I agree there's
- NOTE Confidence: 0.8670272
- $01:06:30.270 \longrightarrow 01:06:31.720$ actually a question that just
- NOTE Confidence: 0.8670272
- $01:06:31.773 \longrightarrow 01:06:33.543$ came in the chat that Doctor
- NOTE Confidence: 0.8670272
- $01{:}06{:}33.543 \dashrightarrow 01{:}06{:}34.990$ that's very appropriate for you.
- NOTE Confidence: 0.8670272
- 01:06:34.990 --> 01:06:36.760 I think I know the answer,
- NOTE Confidence: 0.8670272
- $01:06:36.760 \longrightarrow 01:06:38.230$ but is the question is,
- NOTE Confidence: 0.8670272
- $01:06:38.230 \rightarrow 01:06:40.890$ is it overly aggressive to ask your
- NOTE Confidence: 0.8670272
- 01:06:40.890 --> 01:06:42.781 primary care doctor to recommend

- NOTE Confidence: 0.8670272
- $01:06:42.781 \rightarrow 01:06:45.510$ a colonoscopy at the age of 45? So

01:06:45.510 --> 01:06:47.994 from all we know, there's already

NOTE Confidence: 0.8136516

 $01{:}06{:}47{.}994 \dashrightarrow 01{:}06{:}50{.}015$ one society recommending that the

NOTE Confidence: 0.8136516

 $01:06:50.015 \rightarrow 01:06:52.407$ USPS TF pretty soon is gonna do that.

NOTE Confidence: 0.8136516

 $01{:}06{:}52{.}410 \dashrightarrow 01{:}06{:}54{.}588$ I understand the ACG one of

NOTE Confidence: 0.8136516

 $01:06:54.588 \rightarrow 01:06:56.040$ the questions are logical.

NOTE Confidence: 0.8136516

 $01:06:56.040 \longrightarrow 01:06:58.218$ Society's is open to that too.

NOTE Confidence: 0.8136516

 $01:06:58.220 \rightarrow 01:07:00.754$ I think that, as we mentioned before,

NOTE Confidence: 0.8136516

 $01:07:00.760 \longrightarrow 01:07:03.890$ the evidence is there an, and there are not.

NOTE Confidence: 0.8136516

 $01:07:03.890 \rightarrow 01:07:05.540$ That many cancers were screening

NOTE Confidence: 0.8136516

 $01:07:05.540 \longrightarrow 01:07:06.570$ makes difference.

NOTE Confidence: 0.8136516

 $01{:}07{:}06{.}570 \dashrightarrow 01{:}07{:}08{.}748$ And this is one of them.

NOTE Confidence: 0.8136516

 $01:07:08.750 \longrightarrow 01:07:12.008$ There are just not that many Ann and there,

NOTE Confidence: 0.8136516

 $01{:}07{:}12.010 \dashrightarrow 01{:}07{:}13.462$ so the recommendations of

NOTE Confidence: 0.8136516

 $01{:}07{:}13.462 \dashrightarrow 01{:}07{:}14.914$ the American Cancer Society.

 $01:07:14.920 \rightarrow 01:07:16.890$ The new recommendations are probably

NOTE Confidence: 0.8136516

01:07:16.890 --> 01:07:20.090 are going to come out from the USPS TF.

NOTE Confidence: 0.8136516

 $01:07:20.090 \longrightarrow 01:07:22.000$ They're really based on some

NOTE Confidence: 0.8136516

 $01:07:22.000 \rightarrow 01:07:23.910$ what they call modeling studies,

NOTE Confidence: 0.8136516

01:07:23.910 --> 01:07:25.962 because doing a large real life

NOTE Confidence: 0.8136516

 $01:07:25.962 \longrightarrow 01:07:28.264$ study here is a very complex

NOTE Confidence: 0.8136516

 $01:07:28.264 \rightarrow 01:07:30.399$ thing that would take years,

NOTE Confidence: 0.8136516

 $01:07:30.400 \longrightarrow 01:07:32.843$ so they use three different groups of

NOTE Confidence: 0.8136516

 $01:07:32.843 \longrightarrow 01:07:35.369$ researchers that do what's called modeling,

NOTE Confidence: 0.8136516

 $01:07:35.370 \longrightarrow 01:07:37.644$ which is they put together a

NOTE Confidence: 0.8136516

 $01:07:37.644 \rightarrow 01:07:40.340$ bunch of data in terms of and,

NOTE Confidence: 0.8136516

 $01:07:40.340 \longrightarrow 01:07:43.007$ and they come up with with scenarios.

NOTE Confidence: 0.8136516

 $01{:}07{:}43.010 \dashrightarrow 01{:}07{:}44.338$ They look at risk.

NOTE Confidence: 0.8136516

 $01:07:44.338 \longrightarrow 01:07:46.330$ They look at what the potential

NOTE Confidence: 0.8136516

 $01{:}07{:}46.397 \dashrightarrow 01{:}07{:}48.017$ complications could be from

NOTE Confidence: 0.8136516

 $01{:}07{:}48.017 \dashrightarrow 01{:}07{:}50.042$ screening that 'cause they look

- NOTE Confidence: 0.8136516
- $01{:}07{:}50{.}042 \dashrightarrow 01{:}07{:}52{.}238$ a bunch of different things.
- NOTE Confidence: 0.8136516
- $01{:}07{:}52.240 \dashrightarrow 01{:}07{:}54.606$ And what they really saw is that
- NOTE Confidence: 0.8136516
- $01{:}07{:}54.606 \dashrightarrow 01{:}07{:}56.767$ when they corrected for these trends
- NOTE Confidence: 0.8136516
- $01{:}07{:}56.767 \dashrightarrow 01{:}07{:}58.915$ that we're seeing recently in terms
- NOTE Confidence: 0.8136516
- 01:07:58.915 --> 01:08:01.097 of younger and younger people,
- NOTE Confidence: 0.8136516
- $01{:}08{:}01{.}100 \dashrightarrow 01{:}08{:}02.576$ developing cancer starting at
- NOTE Confidence: 0.8136516
- $01{:}08{:}02.576 \dashrightarrow 01{:}08{:}04.790$ 45 makes a lot of sense.
- NOTE Confidence: 0.8136516
- $01:08:04.790 \longrightarrow 01:08:06.998$ So we it's a moving target.
- NOTE Confidence: 0.8136516
- $01{:}08{:}07{.}000 \dashrightarrow 01{:}08{:}09{.}136$ But certainly I think that the
- NOTE Confidence: 0.8136516
- $01:08:09.136 \longrightarrow 01:08:11.013$ consensus is there we have
- NOTE Confidence: 0.8136516
- $01:08:11.013 \rightarrow 01:08:12.898$ to move that that direction.
- NOTE Confidence: 0.8136516
- $01{:}08{:}12{.}900 \dashrightarrow 01{:}08{:}15{.}120$ There's still a group that's there.
- NOTE Confidence: 0.8136516
- $01:08:15.120 \longrightarrow 01:08:16.960$ They are younger than 45.
- NOTE Confidence: 0.8136516
- $01{:}08{:}16.960 \dashrightarrow 01{:}08{:}19.669$ There are being diagnosed and naughty and
- NOTE Confidence: 0.8136516
- $01{:}08{:}19.669 \dashrightarrow 01{:}08{:}22.586$ and those who need to be addressed to.
- NOTE Confidence: 0.8136516

 $01{:}08{:}22{.}590 \dashrightarrow 01{:}08{:}24{.}669$ So what we can start shooting at

NOTE Confidence: 0.8136516

01:08:24.669 --> 01:08:26.764 10 but working what we can also

NOTE Confidence: 0.8136516

 $01{:}08{:}26.764$ --> $01{:}08{:}28.868$ do is to raise our awareness and NOTE Confidence: 0.8136516

01:08:28.868 --> 01:08:31.171 in the past we as physicians with

NOTE Confidence: 0.8136516

01:08:31.171 --> 01:08:32.742 easily dismiss someone 35 year

NOTE Confidence: 0.8136516

 $01{:}08{:}32.742 \dashrightarrow 01{:}08{:}34.566$ old who would have rectal bleeding NOTE Confidence: 0.8136516

01:08:34.566 --> 01:08:36.756 and stuff like that was just when

NOTE Confidence: 0.8136516

01:08:36.756 --> 01:08:38.635 you have hemorrhoids and we would

NOTE Confidence: 0.8136516

 $01{:}08{:}38{.}635 \dashrightarrow 01{:}08{:}39{.}835$ not pay much attention.

NOTE Confidence: 0.8136516

 $01{:}08{:}39{.}840 \dashrightarrow 01{:}08{:}41{.}905$ Now we know that we can be

NOTE Confidence: 0.8136516

01:08:41.905 --> 01:08:43.230 that LAX about that.

NOTE Confidence: 0.8136516

 $01{:}08{:}43.230 \dashrightarrow 01{:}08{:}45.036$ So I think that level of awareness

NOTE Confidence: 0.8136516

01:08:45.036 --> 01:08:46.776 is also very important because even

NOTE Confidence: 0.8136516

01:08:46.776 --> 01:08:48.890 going down to 45 there's still a

NOTE Confidence: 0.8136516

01:08:48.950 --> 01:08:50.358 significant number of individuals

NOTE Confidence: 0.8136516

 $01:08:50.358 \rightarrow 01:08:52.840$ who are even younger than that like.

- NOTE Confidence: 0.8136516
- $01:08:52.840 \longrightarrow 01:08:53.580$ The actor,
- NOTE Confidence: 0.8136516
- $01:08:53.580 \rightarrow 01:08:56.598$ who you know we would have been late
- NOTE Confidence: 0.8136516
- $01{:}08{:}56{.}598 \dashrightarrow 01{:}08{:}59{.}140$ for them too, so our awareness is very,
- NOTE Confidence: 0.8136516
- $01:08:59.140 \rightarrow 01:09:00.246$ very important.
- NOTE Confidence: 0.8136516
- 01:09:00.246 --> 01:09:00.799 Great,
- NOTE Confidence: 0.8726499
- $01{:}09{:}00.800 \dashrightarrow 01{:}09{:}03.352$ thank you. I'm going to turn to Doctor
- NOTE Confidence: 0.8726499
- $01:09:03.352 \rightarrow 01:09:05.994$ Boyd and you know I think chemotherapy
- NOTE Confidence: 0.8726499
- $01{:}09{:}05{.}994 \dashrightarrow 01{:}09{:}08{.}621$ and oncologists get kind of a bad
- NOTE Confidence: 0.8726499
- $01{:}09{:}08.621 \dashrightarrow 01{:}09{:}10.805$ rap and I'm wondering if you can
- NOTE Confidence: 0.8726499
- 01:09:10.805 --> 01:09:12.780 comment on sort of chemotherapy and
- NOTE Confidence: 0.8726499
- $01:09:12.780 \longrightarrow 01:09:15.506$ is it really all that bad and maybe
- NOTE Confidence: 0.8726499
- $01{:}09{:}15{.}506 \dashrightarrow 01{:}09{:}17{.}830$ some about the side effects and how
- NOTE Confidence: 0.8726499
- $01:09:17.900 \rightarrow 01:09:20.066$ we help get patients through it.
- NOTE Confidence: 0.7877553
- $01{:}09{:}21.570 \dashrightarrow 01{:}09{:}25.098$ As I mentioned, one of the keys to treating
- NOTE Confidence: 0.7877553
- $01:09:25.098 \rightarrow 01:09:26.867$ particularly with metastatic disease
- NOTE Confidence: 0.7877553

 $01:09:26.867 \rightarrow 01:09:29.905$ is really tailoring it to the patient,

NOTE Confidence: 0.7877553

 $01:09:29.910 \longrightarrow 01:09:33.258$ so we have a way ways of using the

NOTE Confidence: 0.7877553

 $01{:}09{:}33.258 \dashrightarrow 01{:}09{:}36.167$ medicines that will limit side effects.

NOTE Confidence: 0.7877553

01:09:36.170 --> 01:09:37.415 Potentially use alternating

NOTE Confidence: 0.7877553

01:09:37.415 --> 01:09:39.075 regiments or lower doses.

NOTE Confidence: 0.7877553

 $01:09:39.080 \rightarrow 01:09:41.999$ When we think are developing side effect.

NOTE Confidence: 0.7877553

01:09:42.000 --> 01:09:44.090 The example, as I mentioned,

NOTE Confidence: 0.7877553

 $01:09:44.090 \rightarrow 01:09:46.586$ is follow contains the Asian oxaliplatin,

NOTE Confidence: 0.7877553

 $01{:}09{:}46{.}590 \dashrightarrow 01{:}09{:}49{.}086$ which produces a significant or opathy,

NOTE Confidence: 0.7877553

01:09:49.090 --> 01:09:51.180 which, if continued on treatment,

NOTE Confidence: 0.7877553

 $01{:}09{:}51{.}180 \dashrightarrow 01{:}09{:}51{.}800$ will worsen.

NOTE Confidence: 0.7877553

 $01{:}09{:}51{.}800 \dashrightarrow 01{:}09{:}53{.}970$ And has effects on quality of life.

NOTE Confidence: 0.7877553

01:09:53.970 --> 01:09:55.392 You have a person's a musician

NOTE Confidence: 0.7877553

 $01{:}09{:}55{.}392 \dashrightarrow 01{:}09{:}57{.}383$ is going to have a big effect on

NOTE Confidence: 0.7877553

 $01:09:57.383 \longrightarrow 01:09:58.865$ their ability to play the guitar.

NOTE Confidence: 0.7877553

 $01:09:58.870 \longrightarrow 01:10:00.646$ If they can't feel the strings.

- NOTE Confidence: 0.7877553
- $01:10:00.650 \rightarrow 01:10:03.260$ And those are things that we now think about.

 $01:10:03.260 \rightarrow 01:10:05.580$ We think about how do we say OK,

NOTE Confidence: 0.7877553

 $01:10:05.580 \longrightarrow 01:10:07.320$ we're starting to get a little

NOTE Confidence: 0.7877553

 $01:10:07.320 \longrightarrow 01:10:08.480$ bit of the scientific.

NOTE Confidence: 0.7877553

 $01:10:08.480 \longrightarrow 01:10:10.220$ Let's hold off on the xle.

NOTE Confidence: 0.7877553

 $01:10:10.220 \longrightarrow 01:10:12.138$ Platten will keep you on the other

NOTE Confidence: 0.7877553

 $01{:}10{:}12{.}138 \dashrightarrow 01{:}10{:}14{.}278$ edge on the rest of the regiment.

NOTE Confidence: 0.7877553

 $01:10:14.280 \longrightarrow 01:10:15.730$ The backbone of the five.

NOTE Confidence: 0.7877553

 $01:10:15.730 \longrightarrow 01:10:17.690$ If you look at Warren with the

NOTE Confidence: 0.7877553

 $01{:}10{:}17.690 \dashrightarrow 01{:}10{:}19.666$ infusion and then we can give you

NOTE Confidence: 0.7877553

 $01:10:19.666 \longrightarrow 01:10:21.274$ a little holiday from that and

NOTE Confidence: 0.7877553

01:10:21.341 --> 01:10:23.267 then we can reintroduce it later.

NOTE Confidence: 0.7877553

01:10:23.270 --> 01:10:25.406 And so I think we're learning how with

NOTE Confidence: 0.7877553

 $01{:}10{:}25{.}406 \dashrightarrow 01{:}10{:}27{.}235$ better agents and with more careful

NOTE Confidence: 0.7877553

 $01{:}10{:}27.235 \dashrightarrow 01{:}10{:}28.780$ attention to these side effects.

01:10:28.780 --> 01:10:30.200 Another example is folfiri,

NOTE Confidence: 0.7877553

 $01:10:30.200 \longrightarrow 01:10:31.975$ which is a renote can't.

NOTE Confidence: 0.7877553

 $01:10:31.980 \longrightarrow 01:10:32.892$ And what's interesting,

NOTE Confidence: 0.7877553

 $01:10:32.892 \longrightarrow 01:10:35.515$ better in Attican is it has this ability

NOTE Confidence: 0.7877553

 $01:10:35.515 \rightarrow 01:10:37.690$ to generate fairly significant diarrhea,

NOTE Confidence: 0.7877553

 $01:10:37.690 \rightarrow 01:10:39.480$ and there's certain people interesting,

NOTE Confidence: 0.7877553

01:10:39.480 --> 01:10:39.824 Lee.

NOTE Confidence: 0.7877553

 $01:10:39.824 \longrightarrow 01:10:42.232$ It's been shown that people in the

NOTE Confidence: 0.7877553

01:10:42.232 --> 01:10:44.439 Southeastern US are more prone to

NOTE Confidence: 0.7877553

 $01{:}10{:}44{.}439 \dashrightarrow 01{:}10{:}46{.}617$ adverse effects with the red attendance.

NOTE Confidence: 0.7877553

01:10:46.620 $\operatorname{-->}$ 01:10:48.853 We may start with a lower dose

NOTE Confidence: 0.7877553

 $01:10:48.853 \longrightarrow 01:10:51.082$ in some individuals is a very

NOTE Confidence: 0.7877553

 $01{:}10{:}51.082 \dashrightarrow 01{:}10{:}52.686$ common condition called Gilbert's.

NOTE Confidence: 0.7877553

 $01:10:52.690 \rightarrow 01:10:55.547$ We know that maybe 5 to 8% of

NOTE Confidence: 0.7877553

 $01{:}10{:}55{.}547 \dashrightarrow 01{:}10{:}57{.}689$ patients will have a little mild

NOTE Confidence: 0.7877553

 $01:10:57.689 \longrightarrow 01:10:58.760$ elevation in bilirubin,

- NOTE Confidence: 0.7877553
- $01:10:58.760 \longrightarrow 01:11:00.938$ but that's in clue to metabolic
- NOTE Confidence: 0.7877553
- 01:11:00.938 --> 01:11:02.808 changes that may enhance the
- NOTE Confidence: 0.7877553
- $01:11:02.808 \longrightarrow 01:11:04.538$ side effect of their energy.
- NOTE Confidence: 0.7877553
- 01:11:04.540 --> 01:11:04.841 Yeah,
- NOTE Confidence: 0.7877553
- $01:11:04.841 \longrightarrow 01:11:07.550$ so if we're alert to some of these genetic
- NOTE Confidence: 0.7877553
- $01:11:07.615 \rightarrow 01:11:09.997$ differences in metabolism of the drug,
- NOTE Confidence: 0.7877553
- $01:11:10.000 \longrightarrow 01:11:12.040$ we can start ahead of time,
- NOTE Confidence: 0.7877553
- $01{:}11{:}12{.}040 \dashrightarrow 01{:}11{:}14{.}301$ reduce the dose and affectively treat them
- NOTE Confidence: 0.7877553
- $01:11:14.301 \rightarrow 01:11:16.478$ with lower doses without causing risk.
- NOTE Confidence: 0.7877553
- $01:11:16.480 \longrightarrow 01:11:19.540$ And so I think that's always been the goal.
- NOTE Confidence: 0.7877553
- 01:11:19.540 --> 01:11:21.586 How do we modulate the treatment?
- NOTE Confidence: 0.7877553
- $01:11:21.590 \rightarrow 01:11:23.636$ Pay careful attention to side effects,
- NOTE Confidence: 0.7877553
- 01:11:23.640 --> 01:11:24.320 adjust it,
- NOTE Confidence: 0.7877553
- $01:11:24.320 \rightarrow 01:11:26.360$ lower doses when they're doing well,
- NOTE Confidence: 0.7877553
- $01{:}11{:}26.360 \dashrightarrow 01{:}11{:}27.965$ and even treatment Holidays to
- NOTE Confidence: 0.7877553

 $01:11:27.965 \longrightarrow 01:11:30.120$ let them get past side effects.

NOTE Confidence: 0.7877553

 $01:11:30.120 \longrightarrow 01:11:31.608$ Retain quality of life.

NOTE Confidence: 0.7877553

01:11:31.608 --> 01:11:34.235 'cause I think quality of life is

NOTE Confidence: 0.7877553

 $01{:}11{:}34{.}235 \dashrightarrow 01{:}11{:}36{.}468$ always the issue for all of these.

NOTE Confidence: 0.7877553

 $01{:}11{:}36{.}470 \dashrightarrow 01{:}11{:}37{.}398$ For all our patients.

NOTE Confidence: 0.87595516

01:11:38.990 --> 01:11:40.750 Great thank you Doctor Mcwhorter.

NOTE Confidence: 0.87595516

01:11:40.750 --> 01:11:42.998 I have a question for you so I

NOTE Confidence: 0.87595516

 $01:11:42.998 \longrightarrow 01:11:45.138$ think that you know one question

NOTE Confidence: 0.87595516

01:11:45.138 --> 01:11:47.400 that patients often bring up when

NOTE Confidence: 0.87595516

 $01{:}11{:}47{.}470 \dashrightarrow 01{:}11{:}49{.}390$ we're talking about surgery for

NOTE Confidence: 0.87595516

01:11:49.390 --> 01:11:52.333 rectal cancers is will I get a bag?

NOTE Confidence: 0.87595516

01:11:52.333 --> 01:11:54.720 Can you talk about what that means

NOTE Confidence: 0.87595516

 $01{:}11{:}54{.}800 \dashrightarrow 01{:}11{:}57{.}528$ and the quality of life if they end

NOTE Confidence: 0.87595516

 $01:11:57.528 \rightarrow 01:12:00.109$ up having to have a colostomy bag?

NOTE Confidence: 0.5346452

01:12:01.400 --> 01:12:06.424 Store. So I can sort of divide

NOTE Confidence: 0.5346452

 $01:12:06.424 \rightarrow 01:12:09.100$ the conversation into two pieces.

- NOTE Confidence: 0.5346452
- $01{:}12{:}09{.}100 \dashrightarrow 01{:}12{:}12{.}424$ One is a permanent bag and

 $01:12:12.424 \rightarrow 01:12:15.260$ one is a temporary bag.

NOTE Confidence: 0.5346452

 $01:12:15.260 \rightarrow 01:12:17.516$ When do patients get permanent bags?

NOTE Confidence: 0.5346452

 $01:12:17.520 \rightarrow 01:12:20.313$ That the time that a colostomy is

NOTE Confidence: 0.5346452

01:12:20.313 --> 01:12:23.000 permanent is when a rectal cancer is

NOTE Confidence: 0.5346452

 $01{:}12{:}23.000 \dashrightarrow 01{:}12{:}25.910$ so low meaning so near the edge of

NOTE Confidence: 0.5346452

 $01:12:25.910 \longrightarrow 01:12:28.450$ your body near your **** that the

NOTE Confidence: 0.5346452

 $01:12:28.450 \longrightarrow 01:12:30.700$ sphincter muscles have to be removed

NOTE Confidence: 0.5346452

 $01:12:30.700 \longrightarrow 01:12:32.977$ in order to remove the cancer.

NOTE Confidence: 0.5346452

01:12:32.980 --> 01:12:34.009 In that scenario,

NOTE Confidence: 0.5346452

 $01:12:34.009 \rightarrow 01:12:36.410$ a person is not going to be

NOTE Confidence: 0.5346452

 $01{:}12{:}36{.}492 \dashrightarrow 01{:}12{:}38{.}627$ continent or in other words,

NOTE Confidence: 0.5346452

 $01:12:38.630 \longrightarrow 01:12:41.120$ able to control their bowels.

NOTE Confidence: 0.5346452

01:12:41.120 $\operatorname{-->}$ 01:12:43.885 In that one scenario where you will

NOTE Confidence: 0.5346452

 $01{:}12{:}43.885 \dashrightarrow 01{:}12{:}47.010$ never be able to control your bowels,

- $01:12:47.010 \longrightarrow 01:12:50.892$ a colostomy needs to be a
- NOTE Confidence: 0.5346452
- $01:12:50.892 \longrightarrow 01:12:52.186$ permanent situation.

 $01:12:52.190 \rightarrow 01:12:55.878$ What's more common is to have a bag

NOTE Confidence: 0.5346452

 $01:12:55.878 \rightarrow 01:12:59.220$ which is going to be temporary.

NOTE Confidence: 0.5346452

 $01:12:59.220 \longrightarrow 01:13:02.223$ And the reason that we do that

NOTE Confidence: 0.5346452

 $01:13:02.223 \rightarrow 01:13:04.080$ sometimes is is that.

NOTE Confidence: 0.5346452

01:13:04.080 --> 01:13:06.824 One of the most risky parts of

NOTE Confidence: 0.5346452

 $01:13:06.824 \longrightarrow 01:13:08.735$ an intestinal operation is not

NOTE Confidence: 0.5346452

01:13:08.735 --> 01:13:10.697 the taking out of the cancer,

NOTE Confidence: 0.5346452

 $01:13:10.700 \longrightarrow 01:13:12.908$ but is in the putting back

NOTE Confidence: 0.5346452

 $01:13:12.908 \longrightarrow 01:13:14.380$ together of the intestine,

NOTE Confidence: 0.5346452

 $01:13:14.380 \longrightarrow 01:13:16.220$ and particularly for rectal cancer,

NOTE Confidence: 0.5346452

 $01:13:16.220 \longrightarrow 01:13:18.796$ which is low down in the pelvis.

NOTE Confidence: 0.5346452

 $01{:}13{:}18{.}800 \dashrightarrow 01{:}13{:}21{.}596$ It is a technically more difficult

NOTE Confidence: 0.5346452

 $01:13:21.596 \rightarrow 01:13:23.999$ operation for your surgeon to do.

NOTE Confidence: 0.5346452

 $01:13:24.000 \longrightarrow 01:13:26.610$ It's the healing can also be

- NOTE Confidence: 0.5346452
- $01:13:26.610 \rightarrow 01:13:28.350$ compromised when prior chemotherapy

01:13:28.420 --> 01:13:30.630 and prior radiation therapy have

NOTE Confidence: 0.5346452

01:13:30.630 --> 01:13:32.840 been delivered to those tissues,

NOTE Confidence: 0.5346452

 $01:13:32.840 \rightarrow 01:13:36.655$ so they're not as good at healing.

NOTE Confidence: 0.5346452

01:13:36.660 --> 01:13:37.668 In that scenario,

NOTE Confidence: 0.5346452

 $01{:}13{:}37.668 \dashrightarrow 01{:}13{:}39.684$ where where we've had a difficult

NOTE Confidence: 0.5346452

 $01:13:39.684 \rightarrow 01:13:41.659$ operation that may or may

NOTE Confidence: 0.5346452

 $01:13:41.659 \longrightarrow 01:13:43.243$ not have involved radiation

NOTE Confidence: 0.5346452

 $01:13:43.243 \rightarrow 01:13:44.035$ chemotherapy preoperatively,

NOTE Confidence: 0.5346452

 $01:13:44.040 \rightarrow 01:13:46.616$ but we put the intestine back together,

NOTE Confidence: 0.5346452

 $01{:}13{:}46.620 \dashrightarrow 01{:}13{:}49.476$ we have some concern that our hand iwork

NOTE Confidence: 0.5346452

01:13:49.476 --> 01:13:52.894 is not going to is not going to hold up,

NOTE Confidence: 0.5346452

 $01{:}13{:}52{.}900 \dashrightarrow 01{:}13{:}55{.}120$ and that a patient can have

NOTE Confidence: 0.5346452

 $01{:}13{:}55{.}120 \dashrightarrow 01{:}13{:}57{.}640$ a leak at their connection.

NOTE Confidence: 0.5346452

 $01:13:57.640 \rightarrow 01:13:59.116$ In that scenario,

 $01:13:59.116 \rightarrow 01:14:02.068$ we sometimes leave a patient temporarily

NOTE Confidence: 0.5346452

01:14:02.068 --> 01:14:04.597 with a colostomy or ileostomy,

NOTE Confidence: 0.5346452

01:14:04.600 --> 01:14:07.972 meaning the stool gets diverted through

NOTE Confidence: 0.5346452

 $01{:}14{:}07{.}972 \dashrightarrow 01{:}14{:}11{.}559$ their skin and into an appliance.

NOTE Confidence: 0.5346452

 $01{:}14{:}11{.}560 \dashrightarrow 01{:}14{:}13{.}918$ Leaving time that their body could

NOTE Confidence: 0.5346452

01:14:13.918 --> 01:14:16.756 heal a a a connection that that

NOTE Confidence: 0.5346452

01:14:16.756 --> 01:14:20.161 had a leak to it and the patient

NOTE Confidence: 0.5346452

01:14:20.161 --> 01:14:22.996 would not suffer the frankly

NOTE Confidence: 0.5346452

01:14:22.996 --> 01:14:25.726 disastrous effects of having stool

NOTE Confidence: 0.5346452

01:14:25.726 --> 01:14:28.006 spill inside of their body.

NOTE Confidence: 0.5346452

01:14:28.010 --> 01:14:31.538 And it would be at a later date

NOTE Confidence: 0.5346452

 $01{:}14{:}31{.}538 \dashrightarrow 01{:}14{:}33{.}454$ that another operation would

NOTE Confidence: 0.5346452

 $01:14:33.454 \longrightarrow 01:14:37.150$ be done to get rid of the bag.

NOTE Confidence: 0.5346452

 $01{:}14{:}37{.}150 \dashrightarrow 01{:}14{:}39{.}630$ Once we have confirmation that

NOTE Confidence: 0.5346452

 $01:14:39.630 \longrightarrow 01:14:42.110$ the the connection healed so.

NOTE Confidence: 0.5346452

 $01{:}14{:}42{.}110 \dashrightarrow 01{:}14{:}44{.}852$ Patients with rectal cancer have much

- NOTE Confidence: 0.5346452
- 01:14:44.852 --> 01:14:47.739 higher incidences of having to have a bag,
- NOTE Confidence: 0.5346452
- $01{:}14{:}47{.}740 \dashrightarrow 01{:}14{:}49{.}965$ and Fortunately usually it's temporary
- NOTE Confidence: 0.5346452
- $01:14:49.965 \rightarrow 01:14:52.870$ as compared to colon cancer patients.
- NOTE Confidence: 0.5346452
- 01:14:52.870 --> 01:14:53.170 Great
- NOTE Confidence: 0.8047373
- 01:14:53.170 --> 01:14:55.249 thank you. Did you want to quickly?
- NOTE Confidence: 0.8047373
- $01{:}14{:}55{.}250 \dashrightarrow 01{:}14{:}57{.}014$ There was a quick question that
- NOTE Confidence: 0.8047373
- $01:14:57.014 \rightarrow 01:14:59.129$ was in there also on the average
- NOTE Confidence: 0.8047373
- 01:14:59.129 --> 01:15:00.887 time span of a polyp becoming
- NOTE Confidence: 0.8047373
- 01:15:00.890 --> 01:15:03.039 a cancer. Yeah, I'll I'll ask for
- NOTE Confidence: 0.8047373
- $01:15:03.039 \rightarrow 01:15:06.440$ doctor yours help with it too, but.
- NOTE Confidence: 0.8047373
- $01:15:06.440 \longrightarrow 01:15:10.566$ To be simple. I think that most
- NOTE Confidence: 0.8047373
- 01:15:10.566 --> 01:15:12.311 patient most people are aware
- NOTE Confidence: 0.8047373
- 01:15:12.311 --> 01:15:14.677 that that our our societies have
- NOTE Confidence: 0.8047373
- 01:15:14.677 --> 01:15:16.622 recommended that you can wait.
- NOTE Confidence: 0.8047373
- 01:15:16.630 --> 01:15:18.568 If you're an average risk patient
- NOTE Confidence: 0.8047373

 $01:15:18.568 \rightarrow 01:15:20.730$ who's had prior normal colonoscopies,

NOTE Confidence: 0.8047373

 $01{:}15{:}20.730 \dashrightarrow 01{:}15{:}22.968$ meaning there have not been polyps

NOTE Confidence: 0.8047373

 $01:15:22.968 \longrightarrow 01:15:26.357$ that you can wait up to 10 years to NOTE Confidence: 0.8047373

01:15:26.357 --> 01:15:28.182 have your colonoscopy done again,

NOTE Confidence: 0.8047373

 $01:15:28.190 \longrightarrow 01:15:30.060$ and the reason for that.

NOTE Confidence: 0.8047373

01:15:30.060 --> 01:15:32.030 The recommendation of that time

NOTE Confidence: 0.8047373

 $01{:}15{:}32{.}030 \dashrightarrow 01{:}15{:}35{.}217$ period is that it has been found that

NOTE Confidence: 0.8047373

 $01:15:35.217 \rightarrow 01:15:37.491$ if you have a normal colonoscopy

NOTE Confidence: 0.8047373

01:15:37.491 --> 01:15:39.960 on day zero that you can wait.

NOTE Confidence: 0.8047373

 $01{:}15{:}39{.}960 \dashrightarrow 01{:}15{:}42{.}536$ For up to those ten years before

NOTE Confidence: 0.8047373

 $01:15:42.536 \rightarrow 01:15:45.857$ a new growth has gone through the NOTE Confidence: 0.8047373

 $01:15:45.857 \rightarrow 01:15:47.985$ polyp to cancer transformation,

NOTE Confidence: 0.8047373

 $01{:}15{:}47{.}990 \dashrightarrow 01{:}15{:}50{.}727$ that's not one size fits all patients

NOTE Confidence: 0.8047373

01:15:50.727 --> 01:15:53.436 who have had prior colonoscopies that

NOTE Confidence: 0.8047373

 $01{:}15{:}53.436 \dashrightarrow 01{:}15{:}56.346$ have included some or many polyps

NOTE Confidence: 0.8047373

 $01:15:56.346 \rightarrow 01:15:59.586$ are going to be recommended by their

- NOTE Confidence: 0.8047373
- 01:15:59.586 --> 01:16:02.262 gas
trinologist to have a colonoscopy in
- NOTE Confidence: 0.8047373
- $01{:}16{:}02.262 \dashrightarrow 01{:}16{:}05.830$ two years or three years or five years.
- NOTE Confidence: 0.8047373
- $01{:}16{:}05{.}830 \dashrightarrow 01{:}16{:}09{.}617$ But there is some biology to the
- NOTE Confidence: 0.8047373
- $01:16:09.617 \rightarrow 01:16:12.210$ recommendation that you can wait.
- NOTE Confidence: 0.8047373
- $01{:}16{:}12.210 \dashrightarrow 01{:}16{:}15.800$ A different number of years.
- NOTE Confidence: 0.8047373
- 01:16:15.800 --> 01:16:16.200 After
- NOTE Confidence: 0.8430601
- $01:16:16.200 \longrightarrow 01:16:17.418$ you are anything
- NOTE Confidence: 0.8430601
- $01{:}16{:}17{.}420 \dashrightarrow 01{:}16{:}19{.}838$ to add to that no 100%
- NOTE Confidence: 0.8430601
- 01:16:19.840 --> 01:16:21.049 agree. OK great.
- NOTE Confidence: 0.92239356
- $01:16:23.820 \longrightarrow 01:16:24.340$ Yeah.
- NOTE Confidence: 0.8338513
- $01:16:25.900 \longrightarrow 01:16:28.190$ Question is a technical one.
- NOTE Confidence: 0.8338513
- $01:16:28.190 \rightarrow 01:16:31.640$ Are the insurance companies covering?
- NOTE Confidence: 0.8338513
- $01:16:31.640 \longrightarrow 01:16:34.570$ Colonoscopies for 45 year olds.
- NOTE Confidence: 0.8338513
- 01:16:34.570 --> 01:16:35.890 So there there
- NOTE Confidence: 0.8587768
- 01:16:35.890 --> 01:16:38.520 is a significant number of insurance
- NOTE Confidence: 0.8587768

 $01:16:38.520 \rightarrow 01:16:41.160$ companies that already now are covering.

NOTE Confidence: 0.8587768

01:16:41.160 --> 01:16:43.980 There's been a significant and quite

NOTE Confidence: 0.8587768

01:16:43.980 --> 01:16:47.300 fast move for coverage for 45 and older.

NOTE Confidence: 0.8353517

01:16:48.490 --> 01:16:51.073 Yeah, I'm going to answer a quick

NOTE Confidence: 0.8353517

 $01{:}16{:}51{.}073 \dashrightarrow 01{:}16{:}53{.}732$ question that was in earlier on a

NOTE Confidence: 0.8353517

 $01{:}16{:}53.732 \dashrightarrow 01{:}16{:}56.240$ topic that I happened to specialize in.

NOTE Confidence: 0.8353517

 $01{:}16{:}56{.}240 \dashrightarrow 01{:}16{:}58{.}394$ So does treatment for a neuroendocrine

NOTE Confidence: 0.8353517

 $01:16:58.394 \rightarrow 01:17:00.271$ rectal or colon cancer differ

NOTE Confidence: 0.8353517

 $01:17:00.271 \longrightarrow 01:17:02.136$ from that of an adenocarcinoma?

NOTE Confidence: 0.8353517

 $01{:}17{:}02{.}140 \dashrightarrow 01{:}17{:}05{.}083$ So the most common type of colon or rectal

NOTE Confidence: 0.8353517

 $01{:}17{:}05{.}083 \dashrightarrow 01{:}17{:}07{.}677$ cancer is this a denocarcinoma type that,

NOTE Confidence: 0.8353517

01:17:07.680 --> 01:17:10.130 if it's what the cells look like

NOTE Confidence: 0.8353517

 $01:17:10.130 \rightarrow 01:17:12.397$ under the microscope in our pathology

NOTE Confidence: 0.8353517

 $01{:}17{:}12{.}397 \dashrightarrow 01{:}17{:}14{.}689$ colleagues help us figure that out.

NOTE Confidence: 0.8353517

01:17:14.690 --> 01:17:17.266 I would say this surgical approach is

NOTE Confidence: 0.8353517

01:17:17.266 --> 01:17:19.183 very similar, and Doctor Mcwhorter.

- NOTE Confidence: 0.8353517
- $01:17:19.183 \longrightarrow 01:17:20.356$ Comment on that.
- NOTE Confidence: 0.8353517
- 01:17:20.360 --> 01:17:22.520 It's the pre and post treatment
- NOTE Confidence: 0.8353517
- $01:17:22.520 \rightarrow 01:17:23.960$ approach that differ considerably.
- NOTE Confidence: 0.8353517
- $01:17:23.960 \rightarrow 01:17:26.130$ I would say that we usually do
- NOTE Confidence: 0.8353517
- $01:17:26.130 \longrightarrow 01:17:27.993$ not use radiation or chemotherapy
- NOTE Confidence: 0.8353517
- $01:17:27.993 \longrightarrow 01:17:29.717$ and that diseases again.
- NOTE Confidence: 0.8353517
- $01:17:29.720 \longrightarrow 01:17:31.520$ There are some nuances there,
- NOTE Confidence: 0.8353517
- $01:17:31.520 \longrightarrow 01:17:33.320$ but that's the simple answer.
- NOTE Confidence: 0.8353517
- $01{:}17{:}33{.}320 \dashrightarrow 01{:}17{:}34{.}970$ I had some questions that
- NOTE Confidence: 0.8353517
- 01:17:34.970 --> 01:17:37.280 came in quite a bit earlier,
- NOTE Confidence: 0.8353517
- 01:17:37.280 --> 01:17:40.780 kind of before the web and R that I might
- NOTE Confidence: 0.8353517
- $01{:}17{:}40.871 \dashrightarrow 01{:}17{:}44.120$ ask to the group and it's a lot about.
- NOTE Confidence: 0.8353517
- $01:17:44.120 \longrightarrow 01:17:46.640$ You know how we work as teams.
- NOTE Confidence: 0.8353517
- $01{:}17{:}46.640 \dashrightarrow 01{:}17{:}49.460$ Some of the questions are around.
- NOTE Confidence: 0.8353517
- $01:17:49.460 \longrightarrow 01:17:51.482$ You know, if a patient sees
- NOTE Confidence: 0.8353517

01:17:51.482 --> 01:17:52.830 a General Medical oncologist,

NOTE Confidence: 0.8353517

 $01:17:52.830 \rightarrow 01:17:54.958$ how can they take advantage of using

NOTE Confidence: 0.8353517

 $01:17:54.958 \rightarrow 01:17:57.209$ some of the specialists at Yale?

NOTE Confidence: 0.8353517

01:17:57.210 --> 01:17:59.569 And I think that's a great question,

NOTE Confidence: 0.8353517

 $01{:}17{:}59{.}570 \dashrightarrow 01{:}18{:}02{.}146$ and actually one that we were just talking

NOTE Confidence: 0.8353517

 $01{:}18{:}02{.}146 \dashrightarrow 01{:}18{:}04{.}629$ about as a panel before this started,

NOTE Confidence: 0.8353517

 $01{:}18{:}04{.}630 \dashrightarrow 01{:}18{:}07{.}510$ and maybe I'll start so as a kind of the

NOTE Confidence: 0.8353517

 $01:18:07.588 \rightarrow 01:18:10.684$ new director of the Yale GI Cancer program.

NOTE Confidence: 0.8353517

01:18:10.690 --> 01:18:12.724 I'm actually thrilled to be on

NOTE Confidence: 0.8353517

 $01:18:12.724 \rightarrow 01:18:14.400$ the panel tonight with the,

NOTE Confidence: 0.8353517

01:18:14.400 --> 01:18:15.072 you know,

NOTE Confidence: 0.8353517

01:18:15.072 --> 01:18:16.416 Greenwich Care Center Dr.

NOTE Confidence: 0.8353517

01:18:16.420 --> 01:18:19.795 You and I are both primarily at main campus.

NOTE Confidence: 0.8353517

01:18:19.800 --> 01:18:22.208 I think that our goal is really

NOTE Confidence: 0.8353517

 $01:18:22.208 \longrightarrow 01:18:24.664$ to be broadly inclusive of all

NOTE Confidence: 0.8353517

 $01:18:24.664 \rightarrow 01:18:26.909$ of our care center physicians,

- NOTE Confidence: 0.8353517
- 01:18:26.910 --> 01:18:29.070 many of whom have special interests

 $01{:}18{:}29{.}070 \dashrightarrow 01{:}18{:}31{.}260$ in GI cancers and expertise.

NOTE Confidence: 0.8353517

 $01:18:31.260 \longrightarrow 01:18:33.675$ And we have a lot of forums

NOTE Confidence: 0.8353517

 $01:18:33.675 \longrightarrow 01:18:35.600$ that we can interact,

NOTE Confidence: 0.8353517

 $01:18:35.600 \rightarrow 01:18:37.970$ including something called a tumor board.

NOTE Confidence: 0.8353517

 $01{:}18{:}37{.}970 \dashrightarrow 01{:}18{:}40{.}076$ The tumor Board is a multidisciplinary

NOTE Confidence: 0.8353517

01:18:40.076 --> 01:18:42.454 meeting of medical oncologists and surgeons

NOTE Confidence: 0.8353517

 $01:18:42.454 \rightarrow 01:18:44.286$ and gastroenterologists and radiologists.

NOTE Confidence: 0.8353517

01:18:44.290 --> 01:18:47.845 And we all meet and talk about patient cases,

NOTE Confidence: 0.8353517

01:18:47.850 --> 01:18:49.682 but I might ask,

NOTE Confidence: 0.8353517

01:18:49.682 --> 01:18:50.598 you know?

NOTE Confidence: 0.8353517

 $01{:}18{:}50.600 \dashrightarrow 01{:}18{:}52.483$ Where is Lee Boyd and Recorder to

NOTE Confidence: 0.8353517

 $01:18:52.483 \longrightarrow 01:18:53.850$ comment some on that too?

NOTE Confidence: 0.8353517

 $01{:}18{:}53.850 \dashrightarrow 01{:}18{:}55.210$ And their vision for that.

NOTE Confidence: 0.77367604

 $01{:}18{:}57.690 \dashrightarrow 01{:}18{:}59.410$ Whoever wants to go first. Doctor Lee.

01:19:00.920 --> 01:19:04.574 So yes, I think in many ways I having

NOTE Confidence: 0.83050025

 $01:19:04.574 \rightarrow 01:19:08.588$ an expert available to counsel patients

NOTE Confidence: 0.83050025

01:19:08.588 --> 01:19:13.310 will enhance our program, obviously.

NOTE Confidence: 0.83050025

 $01:19:13.310 \longrightarrow 01:19:14.054$ Not surprisingly,

NOTE Confidence: 0.83050025

 $01:19:14.054 \rightarrow 01:19:16.658$ when a person gets diagnosed with cancer,

NOTE Confidence: 0.83050025

 $01:19:16.660 \rightarrow 01:19:19.257$ whether it be early or late stages,

NOTE Confidence: 0.83050025

 $01{:}19{:}19{.}260 \dashrightarrow 01{:}19{:}22{.}167$ they meet with one of us on the medical

NOTE Confidence: 0.83050025

 $01:19:22.167 \longrightarrow 01:19:23.819$ on cologists received recommendation and

NOTE Confidence: 0.83050025

 $01{:}19{:}23.819 \dashrightarrow 01{:}19{:}27.070$ it's not uncommon and quite natural to say, NOTE Confidence: 0.83050025

01:19:27.070 --> 01:19:29.308 OK, you know you've explained things.

NOTE Confidence: 0.83050025

01:19:29.310 --> 01:19:32.062 Could we get a second opinion and we

NOTE Confidence: 0.83050025

 $01:19:32.062 \rightarrow 01:19:34.085$ of course University saying that's

NOTE Confidence: 0.83050025

 $01{:}19{:}34.085 \dashrightarrow 01{:}19{:}37.428$ a good idea and we do recommend well

NOTE Confidence: 0.83050025

01:19:37.428 --> 01:19:40.084 if you got to see a second opinion,

NOTE Confidence: 0.83050025

 $01:19:40.090 \rightarrow 01:19:43.154$ please go see a person who specializes in.

NOTE Confidence: 0.83050025

 $01:19:43.160 \longrightarrow 01:19:45.596$ Or cancer of that specific type.

- NOTE Confidence: 0.83050025
- $01:19:45.600 \rightarrow 01:19:49.776$ And and an expert like doctor clients or her

01:19:49.776 --> 01:19:53.030 colleagues at Yale would be a big resource.

NOTE Confidence: 0.83050025

 $01:19:53.030 \longrightarrow 01:19:55.879$ And if we are able to then

NOTE Confidence: 0.83050025

 $01:19:55.879 \rightarrow 01:19:58.269$ offer that type of service,

NOTE Confidence: 0.83050025

01:19:58.270 --> 01:20:00.610 well, you know with with.

NOTE Confidence: 0.83050025

01:20:00.610 --> 01:20:03.291 Covid one adventure we have now become

NOTE Confidence: 0.83050025

 $01{:}20{:}03{.}291 \dashrightarrow 01{:}20{:}06{.}288$ quite adapted this this a Tele health where

NOTE Confidence: 0.83050025

 $01:20:06.288 \rightarrow 01:20:09.010$ our clinicians can be viewed to pathology.

NOTE Confidence: 0.83050025

 $01{:}20{:}09{.}010 \dashrightarrow 01{:}20{:}12{.}066$ The radio graphic data and get really good.

NOTE Confidence: 0.83050025

 $01:20:12.070 \longrightarrow 01:20:13.654$ You know, a recommendation.

NOTE Confidence: 0.83050025

 $01{:}20{:}13.654 \dashrightarrow 01{:}20{:}16.826$ But in the past you would have to

NOTE Confidence: 0.83050025

 $01{:}20{:}16.826 \dashrightarrow 01{:}20{:}19.325$ be that our patients would have to,

NOTE Confidence: 0.83050025

01:20:19.330 --> 01:20:21.616 you know, go to New Haven.

NOTE Confidence: 0.83050025

01:20:21.620 --> 01:20:23.912 But if we could have that

NOTE Confidence: 0.83050025

 $01:20:23.912 \longrightarrow 01:20:25.440$ expertise in our community,

- $01:20:25.440 \longrightarrow 01:20:28.269$ say, you know.
- NOTE Confidence: 0.83050025
- 01:20:28.270 --> 01:20:31.574 A week or so many days a week,
- NOTE Confidence: 0.83050025
- $01{:}20{:}31.580 \dashrightarrow 01{:}20{:}34.955$ I think it'll be great and I think it'll
- NOTE Confidence: 0.83050025
- $01:20:34.955 \rightarrow 01:20:38.208$ be a great option for our patients.
- NOTE Confidence: 0.83050025
- $01{:}20{:}38{.}210 \dashrightarrow 01{:}20{:}40{.}754$ There are more common conditions where
- NOTE Confidence: 0.83050025
- $01{:}20{:}40.754 \dashrightarrow 01{:}20{:}43.700$ you know things appear to be much NOTE Confidence: 0.83050025
- 01:20:43.700 --> 01:20:45.655 more following along an algorithm,
- NOTE Confidence: 0.83050025
- $01{:}20{:}45.660 \dashrightarrow 01{:}20{:}48.964$ but our our illness it you know it's
- NOTE Confidence: 0.83050025
- 01:20:48.964 --> 01:20:51.991 it's quite different from one person NOTE Confidence: 0.83050025
- 01:20:51.991 --> 01:20:55.153 to another and having an expertise
- NOTE Confidence: 0.83050025
- $01{:}20{:}55{.}250 \dashrightarrow 01{:}20{:}58{.}330$ as some one who has great number of.
- NOTE Confidence: 0.83050025
- 01:20:58.330 --> 01:21:00.340 You know your situation where that
- NOTE Confidence: 0.83050025
- 01:21:00.340 --> 01:21:02.572 person could have handled or come across
- NOTE Confidence: 0.83050025
- $01{:}21{:}02{.}572 \dashrightarrow 01{:}21{:}04{.}525$ the situation I think would be very
- NOTE Confidence: 0.83050025
- $01{:}21{:}04{.}583 \dashrightarrow 01{:}21{:}06{.}759$ helpful to all of our patients as well.
- NOTE Confidence: 0.83050025
- 01:21:06.760 --> 01:21:07.090 Yeah,

01:21:07.090 --> 01:21:09.594 and you know I often tell patients that

NOTE Confidence: 0.881929929999999

 $01{:}21{:}09{.}594 \dashrightarrow 01{:}21{:}11{.}893$ they have the best of both worlds by

NOTE Confidence: 0.881929929999999

01:21:11.893 --> 01:21:14.199 having a doc in their community and

NOTE Confidence: 0.881929929999999

01:21:14.199 --> 01:21:16.144 connection with an academic center

NOTE Confidence: 0.881929929999999

 $01{:}21{:}16.144$ --> $01{:}21{:}18.555$ and we can really share and taking

NOTE Confidence: 0.881929929999999

01:21:18.555 --> 01:21:20.901 care of the patient where they can

NOTE Confidence: 0.881929929999999

 $01{:}21{:}20{.}901 \dashrightarrow 01{:}21{:}23{.}176$ get their infusions closer to home and

NOTE Confidence: 0.881929929999999

 $01:21:23.176 \longrightarrow 01:21:25.167$ maybe occasionally have if they need

NOTE Confidence: 0.881929929999999

 $01{:}21{:}25{.}167 \dashrightarrow 01{:}21{:}27{.}408$ an extra input from a specialist or

NOTE Confidence: 0.881929929999999

 $01:21:27.408 \longrightarrow 01:21:29.641$ access to a clinical trial that may

NOTE Confidence: 0.881929929999999

 $01{:}21{:}29.641 \dashrightarrow 01{:}21{:}32.015$ not be available at that care center.

NOTE Confidence: 0.881929929999999

 $01:21:32.020 \longrightarrow 01:21:33.660$ Although we're working on that,

NOTE Confidence: 0.881929929999999

01:21:33.660 --> 01:21:35.622 I think that that collaboration can

NOTE Confidence: 0.881929929999999

 $01:21:35.622 \rightarrow 01:21:37.662$ work quite well, especially as.

NOTE Confidence: 0.881929929999999

01:21:37.662 --> 01:21:41.344 The Smilow Care Center Network is expanding.

01:21:41.350 --> 01:21:43.359 Doctor Boyd, do you have any comments

NOTE Confidence: 0.8886146

 $01{:}21{:}43.360 \dashrightarrow 01{:}21{:}45.034$ on that? Yeah, I think it's

NOTE Confidence: 0.8886146

 $01{:}21{:}45{.}034 \dashrightarrow 01{:}21{:}46{.}799$ actually a wonderful two way street.

NOTE Confidence: 0.8886146

 $01:21:46.800 \rightarrow 01:21:49.131$ I think what I've found is not only is NOTE Confidence: 0.8886146

 $01{:}21{:}49{.}131 \dashrightarrow 01{:}21{:}51{.}531$ it great to get on the phone and call NOTE Confidence: 0.8886146

NOTE Confidence. 0.8880140

 $01{:}21{:}51{.}531 \dashrightarrow 01{:}21{:}54{.}092$ one of my colleagues at Yale with a NOTE Confidence: 0.8886146

 $01:21:54.092 \rightarrow 01:21:56.654$ difficult case and then be able to get

NOTE Confidence: 0.8886146

 $01{:}21{:}56.654 \dashrightarrow 01{:}21{:}59.459$ the patient to be seen to discuss it.

NOTE Confidence: 0.8886146

 $01{:}21{:}59{.}460 \dashrightarrow 01{:}22{:}01{.}090$ But on the other hand,

NOTE Confidence: 0.8886146

01:22:01.090 --> 01:22:03.004 patients are coming here because they

NOTE Confidence: 0.8886146

 $01{:}22{:}03.004 \dashrightarrow 01{:}22{:}05.380$ live close to us and then they get

NOTE Confidence: 0.8886146

01:22:05.380 --> 01:22:07.383 the best of both worlds by getting

NOTE Confidence: 0.8886146

 $01{:}22{:}07{.}383 \dashrightarrow 01{:}22{:}09{.}687$ there here in our center while

NOTE Confidence: 0.8886146

 $01:22:09.687 \longrightarrow 01:22:11.165$ simultaneously getting the expertise

NOTE Confidence: 0.8886146

 $01:22:11.165 \longrightarrow 01:22:12.790$ of yelling that's happened recently.

NOTE Confidence: 0.8886146

 $01{:}22{:}12.790 \dashrightarrow 01{:}22{:}14.740$ Quite a few patients who would

- NOTE Confidence: 0.8886146
- $01:22:14.740 \longrightarrow 01:22:16.040$ rather get care here.
- NOTE Confidence: 0.8886146
- $01{:}22{:}16.040 \dashrightarrow 01{:}22{:}17.815$ We have wonderful nursing care
- NOTE Confidence: 0.8886146
- $01{:}22{:}17.815 \dashrightarrow 01{:}22{:}19.896$ and yet still avail themselves of
- NOTE Confidence: 0.8886146
- $01:22:19.896 \rightarrow 01:22:21.569$ the expertise at Yale to be able
- NOTE Confidence: 0.8886146
- $01{:}22{:}21{.}569 \dashrightarrow 01{:}22{:}23{.}623$ to be sure there were overseeing
- NOTE Confidence: 0.8886146
- $01:22:23.623 \longrightarrow 01:22:25.139$ everything at every step.
- NOTE Confidence: 0.8886146
- $01:22:25.140 \longrightarrow 01:22:26.516$ Everyone is paying attention,
- NOTE Confidence: 0.8886146
- $01{:}22{:}26.516 \dashrightarrow 01{:}22{:}29.040$ so I think it really is a great
- NOTE Confidence: 0.856775178
- $01:22:29.040 \longrightarrow 01:22:30.090$ collaboration. I agree.
- NOTE Confidence: 0.856775178
- $01{:}22{:}30.090 \dashrightarrow 01{:}22{:}32.659$ I agree, well we have a few minutes left.
- NOTE Confidence: 0.856775178
- $01{:}22{:}32.660 \dashrightarrow 01{:}22{:}34.804$ I'm going to end. We did a smile.
- NOTE Confidence: 0.856775178
- $01{:}22{:}34{.}810 \dashrightarrow 01{:}22{:}36{.}412$ Oh shares last week also with
- NOTE Confidence: 0.856775178
- $01{:}22{:}36{.}412 \dashrightarrow 01{:}22{:}37{.}750$ some kind of Northern arc.
- NOTE Confidence: 0.856775178
- 01:22:37.750 --> 01:22:39.661 I guess near New Haven in northern
- NOTE Confidence: 0.856775178
- $01{:}22{:}39.661 \dashrightarrow 01{:}22{:}41.282$ Connecticut I'm going to end with
- NOTE Confidence: 0.856775178

01:22:41.282 --> 01:22:42.574 the same questions. So Doctor,

NOTE Confidence: 0.856775178

01:22:42.574 --> 01:22:44.443 your nose knows what I'm gonna end,

NOTE Confidence: 0.856775178

01:22:44.450 --> 01:22:46.346 but I'd love for every one to think about

NOTE Confidence: 0.856775178

 $01{:}22{:}46{.}346 \dashrightarrow 01{:}22{:}48{.}449$ what you are most hopeful for in the

NOTE Confidence: 0.856775178

 $01{:}22{:}48{.}449 \dashrightarrow 01{:}22{:}50{.}080$ world of colorectal cancer treatments.

NOTE Confidence: 0.856775178

 $01{:}22{:}50{.}080 \dashrightarrow 01{:}22{:}51{.}753$ An and and S on a positive

NOTE Confidence: 0.856775178

 $01:22:51.753 \longrightarrow 01:22:53.030$ note for the evening,

NOTE Confidence: 0.856775178

01:22:53.030 --> 01:22:54.906 so I'm going to start with Doctor.

NOTE Confidence: 0.856775178

01:22:54.910 --> 01:22:56.190 You are since you knew

NOTE Confidence: 0.856775178

 $01:22:56.190 \longrightarrow 01:22:57.850$ I was going to ask that.

NOTE Confidence: 0.856775178

01:22:57.850 --> 01:22:58.930 Maybe I have the

NOTE Confidence: 0.8332575

 $01:22:58.930 \rightarrow 01:23:02.467$ feeling I have to answer the same which is.

NOTE Confidence: 0.8332575

 $01{:}23{:}02{.}470 \dashrightarrow 01{:}23{:}04{.}689$ Making sure we have less and less cancer,

NOTE Confidence: 0.8332575

 $01:23:04.690 \rightarrow 01:23:05.786$ we can prevent it.

NOTE Confidence: 0.8332575

 $01:23:05.786 \rightarrow 01:23:08.009$ This is a very among all of them.

NOTE Confidence: 0.8332575

 $01:23:08.010 \longrightarrow 01:23:09.400$ It's a very preventable one.

- NOTE Confidence: 0.8332575
- $01:23:09.400 \rightarrow 01:23:11.056$ We gotta keep working on that,
- NOTE Confidence: 0.8332575
- $01:23:11.060 \longrightarrow 01:23:13.076$ and I'm not gonna say that I
- NOTE Confidence: 0.8332575
- $01:23:13.076 \longrightarrow 01:23:14.487$ want the oncologist out of
- NOTE Confidence: 0.8332575
- $01:23:14.487 \longrightarrow 01:23:16.044$ business as I did say before.
- NOTE Confidence: 0.8332575
- $01{:}23{:}16.044 \dashrightarrow 01{:}23{:}17.745$ But definitely I want to make sure
- NOTE Confidence: 0.8332575
- $01{:}23{:}17.745 \dashrightarrow 01{:}23{:}19.627$ that we have less and less business
- NOTE Confidence: 0.8332575
- $01:23:19.627 \rightarrow 01:23:21.307$ for you and more prevention.
- NOTE Confidence: 0.7181083
- 01:23:22.110 --> 01:23:26.370 Yes, doctor Mcwhertor how about you? It's
- NOTE Confidence: 0.9298051
- $01:23:26.370 \longrightarrow 01:23:29.230$ hard to argue with that.
- NOTE Confidence: 0.9298051
- $01{:}23{:}29{.}230 \dashrightarrow 01{:}23{:}32{.}070$ This is I I've done other lectures before.
- NOTE Confidence: 0.9298051
- $01{:}23{:}32{.}070 \dashrightarrow 01{:}23{:}34{.}510$ As Doctor your points out.
- NOTE Confidence: 0.9298051
- $01:23:34.510 \longrightarrow 01:23:37.642$ There are a lot of nasty cancers out there,
- NOTE Confidence: 0.9298051
- $01{:}23{:}37.650 \dashrightarrow 01{:}23{:}40.240$ and some of them we don't know
- NOTE Confidence: 0.9298051
- $01:23:40.240 \longrightarrow 01:23:42.189$ when they're going to get us.
- NOTE Confidence: 0.9298051
- $01{:}23{:}42.190 \dashrightarrow 01{:}23{:}45.088$ Whenever we at this point have no way of
- NOTE Confidence: 0.9298051

01:23:45.088 --> 01:23:47.770 knowing when pancreatic cancer may get us,

NOTE Confidence: 0.9298051

 $01:23:47.770 \longrightarrow 01:23:50.474$ we have tools already at our disposal to

NOTE Confidence: 0.9298051

 $01:23:50.474 \rightarrow 01:23:52.616$ prevent colon cancer and rectal cancer

NOTE Confidence: 0.9298051

 $01:23:52.616 \rightarrow 01:23:55.100$ if we simply avail ourselves of them.

NOTE Confidence: 0.9298051

 $01:23:55.100 \longrightarrow 01:23:56.150$ That's the hope.

NOTE Confidence: 0.7229785

 $01{:}23{:}57{.}300 \dashrightarrow 01{:}23{:}59{.}148$ Great doctor Lee.

NOTE Confidence: 0.84880644

01:24:01.060 --> 01:24:03.356 I just echo that presenting a problem,

NOTE Confidence: 0.84880644

01:24:03.360 - 01:24:05.688 whether it be cancer. Any problem

NOTE Confidence: 0.84880644

01:24:05.688 --> 01:24:08.859 is is the best thing you could do.

NOTE Confidence: 0.84880644

 $01{:}24{:}08.860 \dashrightarrow 01{:}24{:}11.086$ Taking care of the problem at this

NOTE Confidence: 0.84880644

 $01{:}24{:}11.086 \dashrightarrow 01{:}24{:}13.458$ earliest is the second best and then

NOTE Confidence: 0.84880644

01:24:13.458 --> 01:24:15.869 tackling the problem head on and coming

NOTE Confidence: 0.84880644

 $01{:}24{:}15.869 \dashrightarrow 01{:}24{:}18.095$ up with better means of doing it.

NOTE Confidence: 0.84880644

 $01{:}24{:}18{.}100 \dashrightarrow 01{:}24{:}20{.}080$ More successful and it's you know,

NOTE Confidence: 0.84880644

 $01{:}24{:}20.080 \dashrightarrow 01{:}24{:}22.720$ less ideal, but it's still an important goal,

NOTE Confidence: 0.84880644

 $01:24:22.720 \longrightarrow 01:24:24.925$ so from you know from my life

- NOTE Confidence: 0.84880644
- 01:24:24.925 --> 01:24:27.278 in a talk on agile, in therapy,
- NOTE Confidence: 0.84880644
- $01:24:27.278 \rightarrow 01:24:28.773$ so actually therapy will reduce
- NOTE Confidence: 0.84880644
- $01:24:28.773 \longrightarrow 01:24:30.310$ the chance of recurrence.
- NOTE Confidence: 0.84880644
- $01:24:30.310 \rightarrow 01:24:32.870$ So we would like better medications that will
- NOTE Confidence: 0.84880644
- $01:24:32.870 \rightarrow 01:24:34.599$ effectively prevent recurrence of cancer.
- NOTE Confidence: 0.84880644
- $01:24:34.600 \longrightarrow 01:24:36.250$ We don't have that yet,
- NOTE Confidence: 0.84880644
- 01:24:36.250 --> 01:24:37.207 but you know,
- NOTE Confidence: 0.84880644
- 01:24:37.207 --> 01:24:40.000 as the medications may I make it better.
- NOTE Confidence: 0.84880644
- $01:24:40.000 \rightarrow 01:24:41.616$ What targeted treatments maybe?
- NOTE Confidence: 0.84880644
- 01:24:41.616 --> 01:24:44.580 Maybe in the not too distant future.
- NOTE Confidence: 0.84880644
- $01{:}24{:}44{.}580 \dashrightarrow 01{:}24{:}47{.}485$ Instead of giving blanket or solid platinum,
- NOTE Confidence: 0.84880644
- $01:24:47.490 \longrightarrow 01:24:49.335$ will be able to specifically
- NOTE Confidence: 0.84880644
- $01:24:49.335 \longrightarrow 01:24:51.180$ design up medication for that
- NOTE Confidence: 0.84880644
- 01:24:51.245 --> 01:24:52.898 particular person's tumor,
- NOTE Confidence: 0.84880644
- $01:24:52.900 \longrightarrow 01:24:54.145$ and really significantly
- NOTE Confidence: 0.84880644

 $01:24:54.145 \longrightarrow 01:24:56.220$ reduced the risk of recurrence.

NOTE Confidence: 0.8483166

01:24:57.670 --> 01:25:00.150 Great thank you and Doctor Boyd. Yeah I.

NOTE Confidence: 0.8483166

01:25:00.150 --> 01:25:01.700 I actually have kind of

NOTE Confidence: 0.8483166

 $01{:}25{:}01{.}700 \dashrightarrow 01{:}25{:}03{.}250$ a mixture of all this.

NOTE Confidence: 0.8483166

 $01{:}25{:}03{.}250 \dashrightarrow 01{:}25{:}05{.}259$ I have great hope that we'll have

NOTE Confidence: 0.8483166

 $01{:}25{:}05{.}259 \dashrightarrow 01{:}25{:}07{.}590$ answers to some of the great conundrums.

NOTE Confidence: 0.8483166

01:25:07.590 --> 01:25:10.678 Like why do young people get colon cancer?

NOTE Confidence: 0.8483166

01:25:10.680 --> 01:25:12.728 No, Charlie Fuchs once said to me it's

NOTE Confidence: 0.8483166

 $01{:}25{:}12.728 \dashrightarrow 01{:}25{:}14.667$ because there's more obesity and there's not.

NOTE Confidence: 0.8483166

 $01{:}25{:}14.670 \dashrightarrow 01{:}25{:}15.624$ It's not obvious.

NOTE Confidence: 0.8483166

 $01{:}25{:}15.624 \dashrightarrow 01{:}25{:}17.850$ There's something else going on and we're

NOTE Confidence: 0.8483166

 $01:25:17.911 \rightarrow 01:25:20.179$ looking at everything from the microbiome.

NOTE Confidence: 0.8483166

 $01:25:20.180 \longrightarrow 01:25:21.770$ That's something that hadn't really

NOTE Confidence: 0.8483166

 $01:25:21.770 \rightarrow 01:25:24.010$ been mentioned, but that's a huge issue.

NOTE Confidence: 0.8483166

 $01:25:24.010 \rightarrow 01:25:26.236$ How does that play a role here?

NOTE Confidence: 0.8483166

01:25:26.240 --> 01:25:27.173 Learning about lifestyle,

- NOTE Confidence: 0.8483166
- $01{:}25{:}27{.}173 \dashrightarrow 01{:}25{:}29{.}039$ diet, all of the things that

 $01:25:29.039 \rightarrow 01:25:30.698$ may early on influence this.

NOTE Confidence: 0.8483166

01:25:30.700 --> 01:25:32.998 Because why do black South Africans

NOTE Confidence: 0.8483166

 $01:25:32.998 \rightarrow 01:25:35.549$ in 1970 never get colon cancer?

NOTE Confidence: 0.8483166

 $01{:}25{:}35{.}550 \dashrightarrow 01{:}25{:}37{.}215$ They were doing something right

NOTE Confidence: 0.8483166

 $01{:}25{:}37{.}215 \dashrightarrow 01{:}25{:}39{.}290$ and so I think we need.

NOTE Confidence: 0.8483166

 $01:25:39.290 \longrightarrow 01:25:41.369$ These are the future is to how

NOTE Confidence: 0.8483166

 $01:25:41.369 \longrightarrow 01:25:43.369$ do we affect our population,

NOTE Confidence: 0.8483166

 $01{:}25{:}43{.}370 \dashrightarrow 01{:}25{:}45{.}842$ lower risk and then also how can we

NOTE Confidence: 0.8483166

 $01{:}25{:}45.842 \dashrightarrow 01{:}25{:}48.200$ use really new or molecular techniques

NOTE Confidence: 0.8483166

 $01{:}25{:}48{.}200 \dashrightarrow 01{:}25{:}50{.}702$ early on when some body might recur

NOTE Confidence: 0.8483166

 $01:25:50.771 \longrightarrow 01:25:52.787$ and catch it before it occurs?

NOTE Confidence: 0.8483166

 $01:25:52.790 \longrightarrow 01:25:53.762$ With newer approaches,

NOTE Confidence: 0.8483166

01:25:53.762 --> 01:25:55.706 we don't yet have validated that

NOTE Confidence: 0.8483166

 $01{:}25{:}55{.}706 \dashrightarrow 01{:}25{:}57{.}760$ can really start to impact patients

 $01:25:57.760 \rightarrow 01:25:59.930$ before they get better static disease.

NOTE Confidence: 0.8483166

 $01:25:59.930 \longrightarrow 01:26:01.910$ After that edge of the rapy and

NOTE Confidence: 0.8483166

 $01:26:01.910 \longrightarrow 01:26:03.670$ may still be at risk.

NOTE Confidence: 0.8502512

 $01{:}26{:}05{.}220 \dashrightarrow 01{:}26{:}06{.}576$ Great, thank you.

NOTE Confidence: 0.8502512

 $01{:}26{:}06{.}576 \dashrightarrow 01{:}26{:}10{.}217$ So I agree with all that has been

NOTE Confidence: 0.8502512

01:26:10.217 $\operatorname{-->}$ 01:26:13.201 said and I will also end with a

NOTE Confidence: 0.8502512

 $01:26:13.201 \longrightarrow 01:26:16.627$ a note of thanks to our audience

NOTE Confidence: 0.8502512

 $01:26:16.627 \rightarrow 01:26:19.046$ for joining us this evening.

NOTE Confidence: 0.8502512

01:26:19.046 --> 01:26:21.276 Thank you to our panelists

NOTE Confidence: 0.8502512

 $01:26:21.276 \rightarrow 01:26:23.060$ for their time tonight.

NOTE Confidence: 0.8502512

 $01:26:23.060 \rightarrow 01:26:26.441$ We encourage our attendees to go to NOTE Confidence: 0.8502512

01:26:26.441 --> 01:26:29.298 Yale Cancer website or or email us.

01.20.20.111 > 01.20.20.200 Tale Calleer website of of end

NOTE Confidence: 0.8502512

 $01{:}26{:}29{.}300 \dashrightarrow 01{:}26{:}31{.}844$ I think those that that information

NOTE Confidence: 0.8502512

 $01{:}26{:}31{.}844 \dashrightarrow 01{:}26{:}34{.}099$ was with the Lincoln Invitation

NOTE Confidence: 0.8502512

 $01{:}26{:}34.099 \dashrightarrow 01{:}26{:}36.955$ and please spread the word about.

NOTE Confidence: 0.8502512

 $01:26:36.960 \longrightarrow 01:26:37.998$ Screening and prevention.

- NOTE Confidence: 0.8502512
- $01{:}26{:}37{.}998 \dashrightarrow 01{:}26{:}41{.}167$ I would say that you know Yale and our

 $01{:}26{:}41{.}167 \dashrightarrow 01{:}26{:}43{.}207$ care centers are open for screening,

NOTE Confidence: 0.8502512

 $01:26:43.210 \longrightarrow 01:26:44.594$ even though we're still

NOTE Confidence: 0.8502512

 $01:26:44.594 \rightarrow 01:26:46.324$ kind of in the pandemic.

NOTE Confidence: 0.8502512

 $01:26:46.330 \longrightarrow 01:26:48.106$ We really encourage you to get

NOTE Confidence: 0.8502512

 $01{:}26{:}48.106 \dashrightarrow 01{:}26{:}50.150$ screened and get your colonoscopies.

NOTE Confidence: 0.8502512

 $01:26:50.150 \rightarrow 01:26:53.264$ So with that I wish everyone a good evening.

NOTE Confidence: 0.8502512

01:26:53.270 --> 01:26:53.620 Thanks

NOTE Confidence: 0.8527547

 $01:26:53.620 \longrightarrow 01:26:56.050$ so much. Thank you thank you, bye.