WEBVTT

NOTE duration: "01:33:02.1660000"

NOTE language:en-us

NOTE Confidence: 0.85384655

 $00:00:00.000 \longrightarrow 00:00:02.610$ I think we can get started.

NOTE Confidence: 0.85384655

 $00:00:02.610 \longrightarrow 00:00:05.466$ It is 602. So hello and welcome to

NOTE Confidence: 0.85384655

 $00{:}00{:}05.466 \dashrightarrow 00{:}00{:}08.710$ the first annual Susan Barris MD CME

NOTE Confidence: 0.85384655

 $00{:}00{:}08.710 \dashrightarrow 00{:}00{:}11.150$ events for Brain Tumor Symposium.

NOTE Confidence: 0.85384655

 $00:00:11.150 \longrightarrow 00:00:14.723$ It's really an exciting way to kick off the

NOTE Confidence: 0.85384655

00:00:14.723 --> 00:00:17.986 brain Tumor Awareness Month of May. And,

NOTE Confidence: 0.85384655

 $00{:}00{:}17.986 \dashrightarrow 00{:}00{:}21.394$ of course, we could not have done to night.

NOTE Confidence: 0.85384655

00:00:21.400 --> 00:00:25.234 I might as well just start by thanking Renee,

NOTE Confidence: 0.85384655

 $00:00:25.240 \longrightarrow 00:00:27.802$ got it for her unbelievable organization

NOTE Confidence: 0.85384655

 $00:00:27.802 \longrightarrow 00:00:30.326$ of the evening, so thank you.

NOTE Confidence: 0.85384655

 $00:00:30.326 \longrightarrow 00:00:32.798$ Immediately to her to my panelists

NOTE Confidence: 0.85384655

 $00:00:32.798 \longrightarrow 00:00:34.756$ who are here, of course,

NOTE Confidence: 0.85384655

 $00:00:34.756 \longrightarrow 00:00:36.994$ who will introduce as they start

NOTE Confidence: 0.85384655

00:00:36.994 --> 00:00:39.238 their talks and to Chris Cassano,

00:00:39.240 --> 00:00:41.484 who is the President of Connecticut

NOTE Confidence: 0.85384655

00:00:41.484 --> 00:00:42.606 Brain Tumor Alliance,

NOTE Confidence: 0.85384655

 $00:00:42.610 \longrightarrow 00:00:45.102$ who has been a huge supporter of

NOTE Confidence: 0.85384655

00:00:45.102 --> 00:00:46.607 brain tumor patients throughout

NOTE Confidence: 0.85384655

 $00{:}00{:}46.607 \dashrightarrow 00{:}00{:}48.821$ the state of Connecticut of our

NOTE Confidence: 0.85384655

 $00:00:48.821 \longrightarrow 00:00:51.210$ work here at yelling at Smilow.

NOTE Confidence: 0.85384655

 $00:00:51.210 \longrightarrow 00:00:53.454$ And it's really great to partner

NOTE Confidence: 0.85384655

00:00:53.454 --> 00:00:55.698 in this event tonight, so Chris,

NOTE Confidence: 0.85384655

 $00:00:55.698 \longrightarrow 00:00:58.690$ if you want to say a few words,

NOTE Confidence: 0.8109805

 $00:00:58.690 \longrightarrow 00:01:01.078$ sure, thank you. Doctor Moliterno and.

NOTE Confidence: 0.8109805

 $00{:}01{:}01.080 \dashrightarrow 00{:}01{:}03.016$ Other panelists and when they bring

NOTE Confidence: 0.8109805

 $00:01:03.016 \longrightarrow 00:01:04.956$ us together and at first doctors

NOTE Confidence: 0.8109805

 $00{:}01{:}04.956 {\:{\mbox{--}}\!>\:} 00{:}01{:}06.896$ to see parents for the first

NOTE Confidence: 0.8109805

00:01:06.896 --> 00:01:08.201 annual Susie Breast Symposium,

NOTE Confidence: 0.8109805

00:01:08.201 --> 00:01:09.836 I'm looking forward to being

00:01:09.836 --> 00:01:12.062 part of this night and, you know,

NOTE Confidence: 0.8109805

 $00:01:12.062 \longrightarrow 00:01:14.325$ sharing are more about our organization with

NOTE Confidence: 0.8109805

00:01:14.325 --> 00:01:16.584 all the branches are pasted family stuff,

NOTE Confidence: 0.8109805

 $00:01:16.584 \longrightarrow 00:01:18.169$ but again, we're we're excited.

NOTE Confidence: 0.8109805

 $00:01:18.169 \longrightarrow 00:01:20.739$ We're happy we want to be a part

NOTE Confidence: 0.8109805

00:01:20.739 --> 00:01:22.617 of your journey with you and

NOTE Confidence: 0.8109805

 $00:01:22.617 \longrightarrow 00:01:24.340$ just know that we're here.

NOTE Confidence: 0.8109805

00:01:24.340 --> 00:01:25.950 We're all patients and survivors,

NOTE Confidence: 0.8109805

 $00{:}01{:}25.950 \dashrightarrow 00{:}01{:}27.888$ caregivers, we've been in your shoes.

NOTE Confidence: 0.8109805

00:01:27.890 --> 00:01:28.859 We understand it,

NOTE Confidence: 0.8109805

 $00:01:28.860 \longrightarrow 00:01:32.526$ and that we're a phone call or email away so.

NOTE Confidence: 0.8109805

 $00:01:32.530 \longrightarrow 00:01:34.586$ We're just really excited to be

NOTE Confidence: 0.8109805

00:01:34.586 --> 00:01:36.650 partnering with GAIL on this presentation,

NOTE Confidence: 0.85380363

00:01:36.650 --> 00:01:39.044 and you know, you're in your head,

NOTE Confidence: 0.85380363

 $00:01:39.044 \longrightarrow 00:01:42.130$ so thank you very much looking forward to it.

NOTE Confidence: 0.87366825

 $00:01:43.260 \longrightarrow 00:01:46.088$ Terrific, thank you again for being here.

 $00:01:46.090 \longrightarrow 00:01:48.918$ Alright so we will start the evening.

NOTE Confidence: 0.87366825

 $00{:}01{:}48.920 \dashrightarrow 00{:}01{:}52.547$ I'm going to start off by sharing my screen.

NOTE Confidence: 0.91943973

00:02:04.430 --> 00:02:09.338 Can you see my screen? Yeah, OK. Alright.

NOTE Confidence: 0.9061312

 $00:02:15.890 \longrightarrow 00:02:18.930$ One second hold on.

NOTE Confidence: 0.9061312

 $00:02:18.930 \longrightarrow 00:02:22.130$ Started at the wrong part of the talk.

NOTE Confidence: 0.9061312

 $00:02:22.130 \longrightarrow 00:02:26.346$ OK. So again, thank you for being here.

NOTE Confidence: 0.9061312

 $00:02:26.350 \longrightarrow 00:02:29.102$ I want to tell you a little bit

NOTE Confidence: 0.9061312

 $00:02:29.102 \longrightarrow 00:02:31.738$ about the person who this is

NOTE Confidence: 0.9061312

00:02:31.738 --> 00:02:34.068 named after Doctor Susan Baras.

NOTE Confidence: 0.9061312

 $00:02:34.070 \longrightarrow 00:02:36.500$ She is a patient of mine,

NOTE Confidence: 0.9061312

 $00{:}02{:}36.500 \dashrightarrow 00{:}02{:}39.342$ a patient of Nicks and Justin incredible

NOTE Confidence: 0.9061312

 $00:02:39.342 \longrightarrow 00:02:41.682$ person and survivor. I met her.

NOTE Confidence: 0.9061312

 $00:02:41.682 \longrightarrow 00:02:45.430$ It'll be 3 1/2 years ago soon knock Wood,

NOTE Confidence: 0.9061312

 $00:02:45.430 \longrightarrow 00:02:48.279$ which Susie makes me do an an.

NOTE Confidence: 0.9061312

 $00:02:48.280 \longrightarrow 00:02:50.709$ I do anyway but she had had

 $00:02:50.709 \longrightarrow 00:02:53.150$ a seizure as a pediatrician.

NOTE Confidence: 0.9061312

 $00:02:53.150 \longrightarrow 00:02:55.730$ She was in her office an.

NOTE Confidence: 0.9061312

 $00:02:55.730 \longrightarrow 00:02:58.572$ She began talking gibberish to her nurse

NOTE Confidence: 0.9061312

 $00:02:58.572 \longrightarrow 00:03:01.057$ and then generalized and had a seizure,

NOTE Confidence: 0.9061312

 $00:03:01.060 \longrightarrow 00:03:04.489$ and this was in the late summer of 2018.

NOTE Confidence: 0.9061312

 $00:03:04.490 \longrightarrow 00:03:06.730$ She unfortunately found that she

NOTE Confidence: 0.9061312

 $00{:}03{:}06.730 \dashrightarrow 00{:}03{:}09.673$ had a glioblastoma and it was in

NOTE Confidence: 0.9061312

 $00{:}03{:}09.673 \dashrightarrow 00{:}03{:}12.145$ the motor area and as you can see

NOTE Confidence: 0.9061312

00:03:12.227 --> 00:03:14.775 here on the picture on the right,

NOTE Confidence: 0.9061312

 $00:03:14.780 \longrightarrow 00:03:16.992$ Susie is an avid fitness fanatic and

NOTE Confidence: 0.9061312

 $00{:}03{:}16.992 \dashrightarrow 00{:}03{:}19.730$ so she is maintaining her strength.

NOTE Confidence: 0.9061312

 $00:03:19.730 \longrightarrow 00:03:22.397$ Of course to anyone is so important,

NOTE Confidence: 0.9061312

 $00{:}03{:}22.400 \dashrightarrow 00{:}03{:}24.596$ but particularly to her she was

NOTE Confidence: 0.9061312

 $00:03:24.596 \longrightarrow 00:03:26.990$ seen at an outside hospital an

NOTE Confidence: 0.9061312

 $00:03:26.990 \longrightarrow 00:03:28.698$ offered a brain biopsy.

NOTE Confidence: 0.9061312

00:03:28.700 --> 00:03:31.570 And she knew being a physician herself,

 $00:03:31.570 \longrightarrow 00:03:34.186$ that there could be more aggressive

NOTE Confidence: 0.9061312

 $00{:}03{:}34.186 \dashrightarrow 00{:}03{:}36.367$ ways to treat glioblastoma even

NOTE Confidence: 0.9061312

00:03:36.367 --> 00:03:38.539 if it involved the motor strip.

NOTE Confidence: 0.9061312

 $00:03:38.540 \longrightarrow 00:03:42.166$ So thankfully she was referred to me.

NOTE Confidence: 0.9061312

 $00:03:42.170 \longrightarrow 00:03:43.980$ We performed an awake craniotomy.

NOTE Confidence: 0.9061312

 $00:03:43.980 \longrightarrow 00:03:45.780$ She did beautifully an achieved.

NOTE Confidence: 0.9061312

 $00:03:45.780 \longrightarrow 00:03:47.778$ A gross total resection and she

NOTE Confidence: 0.9061312

00:03:47.778 --> 00:03:50.109 went home two days after surgery.

NOTE Confidence: 0.9061312

 $00{:}03{:}50.110 \dashrightarrow 00{:}03{:}51.958$ This picture taken at the path

NOTE Confidence: 0.9061312

00:03:51.958 --> 00:03:54.080 of hope of the Connecticut,

NOTE Confidence: 0.9061312

 $00:03:54.080 \longrightarrow 00:03:56.324$ Connecticut Brain Tumor Alliance a few

NOTE Confidence: 0.9061312

00:03:56.324 --> 00:03:58.779 weeks later as Susie after she ran,

NOTE Confidence: 0.9061312

 $00{:}03{:}58.780 \dashrightarrow 00{:}04{:}02.029$ not the 5K that it was supposed to be,

NOTE Confidence: 0.9061312

 $00{:}04{:}02.030 \dashrightarrow 00{:}04{:}05.040$ but the 5K twice so she ran the 10K just

NOTE Confidence: 0.9061312

 $00:04:05.124 \longrightarrow 00:04:08.516$ a couple of weeks after her awake craniotomy.

 $00:04:08.520 \longrightarrow 00:04:10.330$ So she's an incredible person.

NOTE Confidence: 0.9061312

 $00:04:10.330 \longrightarrow 00:04:12.285$ They featured her recently on

NOTE Confidence: 0.9061312

 $00:04:12.285 \longrightarrow 00:04:14.680$ the cover of medicine at Yale.

NOTE Confidence: 0.9061312

 $00:04:14.680 \longrightarrow 00:04:16.430$ As she she says herself,

NOTE Confidence: 0.9061312

 $00:04:16.430 \longrightarrow 00:04:18.530$ she was never very philanthropic person.

NOTE Confidence: 0.9061312

00:04:18.530 --> 00:04:20.847 But having a brain tumor really made

NOTE Confidence: 0.9061312

 $00:04:20.847 \longrightarrow 00:04:23.421$ her become one an she recognized the

NOTE Confidence: 0.9061312

 $00{:}04{:}23.421 \dashrightarrow 00{:}04{:}26.077$ excellence in care that she received at

NOTE Confidence: 0.9061312

 $00{:}04{:}26.077 \dashrightarrow 00{:}04{:}28.677$ Yale and that she continues to receive it.

NOTE Confidence: 0.9061312

00:04:28.680 --> 00:04:29.049 Yale,

NOTE Confidence: 0.9061312

 $00{:}04{:}29.049 \dashrightarrow 00{:}04{:}32.001$ she wanted to to make sure that other

NOTE Confidence: 0.9061312

00:04:32.001 --> 00:04:34.443 people could have the same type of

NOTE Confidence: 0.9061312

 $00:04:34.443 \longrightarrow 00:04:37.181$ care that she did and so we formed

NOTE Confidence: 0.9061312

 $00:04:37.181 \longrightarrow 00:04:39.530$ this Susan Baras MD fund for the

NOTE Confidence: 0.9061312

00:04:39.530 --> 00:04:41.280 male brain tumor Surgery program.

NOTE Confidence: 0.9061312

 $00:04:41.280 \longrightarrow 00:04:43.653$ It's going to fund seminars such as

 $00:04:43.653 \longrightarrow 00:04:45.870$ this for education and collaboration.

NOTE Confidence: 0.9061312

 $00{:}04{:}45.870 \dashrightarrow 00{:}04{:}48.495$ The community and to enhance patient care

NOTE Confidence: 0.9061312

 $00{:}04{:}48.495 \dashrightarrow 00{:}04{:}50.590$ throughout the state of Connecticut.

NOTE Confidence: 0.9061312

 $00:04:50.590 \longrightarrow 00:04:51.374$ In addition,

NOTE Confidence: 0.9061312

 $00:04:51.374 \longrightarrow 00:04:52.158$ pretty excited.

NOTE Confidence: 0.9061312

00:04:52.158 --> 00:04:54.118 Yesterday was a press release,

NOTE Confidence: 0.9061312

 $00:04:54.120 \longrightarrow 00:04:56.478$ a children's book that I wrote.

NOTE Confidence: 0.9061312

00:04:56.480 --> 00:04:58.620 Trump parkers brainstorm when I

NOTE Confidence: 0.9061312

 $00{:}04{:}58.620 \dashrightarrow 00{:}05{:}01.161$ was medical student and then one

NOTE Confidence: 0.9061312

 $00:05:01.161 \longrightarrow 00:05:02.766$ that I wrote last year.

NOTE Confidence: 0.9061312

00:05:02.770 --> 00:05:04.246 Parker's water to ride,

NOTE Confidence: 0.9061312

 $00:05:04.246 \longrightarrow 00:05:07.090$ which was part of a new series.

NOTE Confidence: 0.9061312

 $00{:}05{:}07.090 \dashrightarrow 00{:}05{:}09.448$ We published it through the children's

NOTE Confidence: 0.9061312

 $00:05:09.448 \longrightarrow 00:05:11.020$ Brain Tumor Foundation illustrations.

NOTE Confidence: 0.9061312

 $00:05:11.020 \longrightarrow 00:05:12.560$ I had initially done,

00:05:12.560 --> 00:05:15.365 but have been redone and done much

NOTE Confidence: 0.9061312

 $00{:}05{:}15.365 \dashrightarrow 00{:}05{:}17.825$ better than my initial ones were.

NOTE Confidence: 0.9061312

 $00:05:17.830 \longrightarrow 00:05:20.414$ By Trisha Group Day and so Susie is

NOTE Confidence: 0.9061312

00:05:20.414 --> 00:05:22.738 foundation are her funds are going

NOTE Confidence: 0.9061312

 $00:05:22.738 \longrightarrow 00:05:25.144$ towards these publications of these books,

NOTE Confidence: 0.9061312

00:05:25.150 --> 00:05:27.694 as are our friends at me as miracles

NOTE Confidence: 0.9061312

00:05:27.694 --> 00:05:29.539 and Love Mark Foundation,

NOTE Confidence: 0.9061312

 $00{:}05{:}29.540 \to 00{:}05{:}31.526$ who I'll talk about a little

NOTE Confidence: 0.9061312

 $00:05:31.526 \longrightarrow 00:05:32.850$ bit later with these

NOTE Confidence: 0.82611614

 $00:05:32.924 \longrightarrow 00:05:34.832$ books are being sent and have

NOTE Confidence: 0.82611614

 $00{:}05{:}34.832 \dashrightarrow 00{:}05{:}37.100$ been sent to kids and children's

NOTE Confidence: 0.82611614

 $00{:}05{:}37.100 \dashrightarrow 00{:}05{:}39.420$ hospitals all around the country,

NOTE Confidence: 0.82611614

 $00:05:39.420 \longrightarrow 00:05:41.622$ so that's something else that that's

NOTE Confidence: 0.82611614

 $00:05:41.622 \longrightarrow 00:05:43.450$ usually has been involved with.

NOTE Confidence: 0.82611614

00:05:43.450 --> 00:05:45.646 So anyway, a very special lady,

NOTE Confidence: 0.82611614

00:05:45.650 --> 00:05:48.080 very special person to me.

00:05:48.080 --> 00:05:50.216 And I, I think you know,

NOTE Confidence: 0.82611614

 $00:05:50.220 \longrightarrow 00:05:53.856$ this will be the beginning of a really nice

NOTE Confidence: 0.82611614

 $00:05:53.856 \longrightarrow 00:05:57.019$ series of seminars and lectures to come.

NOTE Confidence: 0.82611614

 $00:05:57.020 \longrightarrow 00:05:59.246$ So for me as a neurosurgeon,

NOTE Confidence: 0.82611614

 $00{:}05{:}59.250 \dashrightarrow 00{:}06{:}01.854$ what I was going to focus on,

NOTE Confidence: 0.82611614

 $00:06:01.860 \longrightarrow 00:06:03.715$ which is what my practices

NOTE Confidence: 0.82611614

 $00:06:03.715 \longrightarrow 00:06:05.199$ is primary brain tumor,

NOTE Confidence: 0.82611614

 $00:06:05.200 \longrightarrow 00:06:07.438$ surgical strategies and give that overview.

NOTE Confidence: 0.82611614

 $00:06:07.440 \longrightarrow 00:06:10.723$ And then we'll segue into neuron koleji

NOTE Confidence: 0.82611614

 $00:06:10.723 \longrightarrow 00:06:13.800$ radiation oncology and then supportive care.

NOTE Confidence: 0.82611614

 $00{:}06{:}13.800 \dashrightarrow 00{:}06{:}16.716$ So what we do here at Yale is really

NOTE Confidence: 0.82611614

 $00{:}06{:}16.716 \dashrightarrow 00{:}06{:}19.956$ in terms of our brain tumor practice.

NOTE Confidence: 0.82611614

 $00{:}06{:}19.960 \dashrightarrow 00{:}06{:}22.848$ We have the highest volume of brain tumor

NOTE Confidence: 0.82611614

00:06:22.848 --> 00:06:25.348 patients in the state of Connecticut,

NOTE Confidence: 0.82611614

 $00:06:25.350 \longrightarrow 00:06:27.660$ and we perform the most brain

 $00:06:27.660 \longrightarrow 00:06:29.200$ tumor surgeries as well.

NOTE Confidence: 0.82611614

 $00{:}06{:}29.200 \dashrightarrow 00{:}06{:}31.510$ We're fortunate to have so many

NOTE Confidence: 0.82611614

 $00:06:31.510 \longrightarrow 00:06:33.050$ partners in the community,

NOTE Confidence: 0.82611614

 $00:06:33.050 \longrightarrow 00:06:35.227$ and I'm really proud of the fact

NOTE Confidence: 0.82611614

 $00:06:35.227 \longrightarrow 00:06:38.006$ that a large part of my practice

NOTE Confidence: 0.82611614

 $00{:}06{:}38.006 \dashrightarrow 00{:}06{:}40.221$ in particular comes from other

NOTE Confidence: 0.82611614

 $00:06:40.221 \longrightarrow 00:06:41.909$ neurosurgeons in the community.

NOTE Confidence: 0.82611614

00:06:41.910 --> 00:06:43.830 Other physicians in the community,

NOTE Confidence: 0.82611614

 $00:06:43.830 \longrightarrow 00:06:46.110$ and across different system hospitals.

NOTE Confidence: 0.82611614

00:06:46.110 --> 00:06:48.814 Which I think really goes to the fact

NOTE Confidence: 0.82611614

 $00:06:48.814 \longrightarrow 00:06:51.507$ that we're all here to help patients an

NOTE Confidence: 0.82611614

 $00:06:51.507 \longrightarrow 00:06:54.450$ we're all here to make sure that they

NOTE Confidence: 0.82611614

 $00:06:54.450 \longrightarrow 00:06:56.814$ they receive the best possible care.

NOTE Confidence: 0.82611614

 $00:06:56.820 \longrightarrow 00:06:57.843$ As a result,

NOTE Confidence: 0.82611614

 $00{:}06{:}57.843 \dashrightarrow 00{:}07{:}01.039$ the cases that we see and that we take

NOTE Confidence: 0.82611614

 $00:07:01.039 \longrightarrow 00:07:03.951$ care of tend to be more complex cases,

 $00{:}07{:}03.960 \dashrightarrow 00{:}07{:}05.685$ and so gliomas and eloquent

NOTE Confidence: 0.82611614

 $00{:}07{:}05.685 \dashrightarrow 00{:}07{:}07.410$ cortex similar to Susie's tumor

NOTE Confidence: 0.82611614

 $00:07:07.471 \longrightarrow 00:07:10.005$ as well as skull based tumors and

NOTE Confidence: 0.82611614

00:07:10.005 --> 00:07:11.091 more aggressive meningiomas,

NOTE Confidence: 0.82611614

 $00:07:11.100 \longrightarrow 00:07:13.599$ which I'll talk a little bit about.

NOTE Confidence: 0.82611614

 $00:07:13.600 \longrightarrow 00:07:16.113$ We're fortunate that every tumor that we

NOTE Confidence: 0.82611614

00:07:16.113 --> 00:07:18.336 biopsy respect at Yale undergoes full

NOTE Confidence: 0.82611614

 $00{:}07{:}18.336 \dashrightarrow 00{:}07{:}20.849$ exome sequencing and I am the director

NOTE Confidence: 0.82611614

 $00:07:20.917 \longrightarrow 00:07:22.962$ of the Multidisciplinary Tumor Board

NOTE Confidence: 0.82611614

 $00{:}07{:}22.962 \dashrightarrow 00{:}07{:}25.361$ and the Precision Brain Tumor Board.

NOTE Confidence: 0.82611614

00:07:25.361 --> 00:07:28.169 And each week we discuss all of our

NOTE Confidence: 0.82611614

 $00:07:28.169 \longrightarrow 00:07:30.903$ patients and really rely on the precision

NOTE Confidence: 0.82611614

 $00{:}07{:}30.903 \dashrightarrow 00{:}07{:}33.140$ brain report for making targeted,

NOTE Confidence: 0.82611614

 $00{:}07{:}33.140 \dashrightarrow 00{:}07{:}35.080$ ANAN more precision care decisions.

NOTE Confidence: 0.8482356

 $00:07:37.560 \longrightarrow 00:07:39.898$ This is just a sampling of cases

00:07:39.898 --> 00:07:42.539 that that I do pretty routinely.

NOTE Confidence: 0.8482356

 $00:07:42.540 \longrightarrow 00:07:44.592$ My fellow had pulled my more

NOTE Confidence: 0.8482356

 $00:07:44.592 \longrightarrow 00:07:46.460$ recent cases and so again,

NOTE Confidence: 0.8482356

00:07:46.460 --> 00:07:48.284 you know, glioblastomas here.

NOTE Confidence: 0.8482356

 $00:07:48.284 \longrightarrow 00:07:52.116$ I don't know if you can see my mouse

NOTE Confidence: 0.8482356

 $00:07:52.116 \longrightarrow 00:07:56.400$ or not and it can you see? Good.

NOTE Confidence: 0.8482356

 $00:07:56.400 \longrightarrow 00:08:00.616$ And snuggly blastoma again in the motor area.

NOTE Confidence: 0.8482356

 $00:08:00.620 \longrightarrow 00:08:03.250$ Some big CP angle tumors.

NOTE Confidence: 0.8482356

 $00{:}08{:}03.250 \dashrightarrow 00{:}08{:}04.822$ Other nasty glioblastomas.

NOTE Confidence: 0.8482356

 $00:08:04.822 \longrightarrow 00:08:06.918$ Really aggressive meningiomas here

NOTE Confidence: 0.8482356

 $00:08:06.918 \dashrightarrow 00:08:10.098$ where we then reconstruct the orbit.

NOTE Confidence: 0.8482356

00:08:10.100 --> 00:08:11.616 Additional again,

NOTE Confidence: 0.8482356

 $00:08:11.616 \longrightarrow 00:08:14.648$ so annoyed wing meningiomas.

NOTE Confidence: 0.8482356

 $00:08:14.650 \longrightarrow 00:08:15.796$ Brain stem tumors.

NOTE Confidence: 0.8482356

00:08:15.796 --> 00:08:18.088 This patient down here had been

NOTE Confidence: 0.8482356

 $00:08:18.088 \longrightarrow 00:08:20.174$ operated on several other by

00:08:20.174 --> 00:08:21.806 several other neurosurgeons and

NOTE Confidence: 0.8482356

 $00:08:21.806 \longrightarrow 00:08:23.989$ then sought care here and again.

NOTE Confidence: 0.8482356

00:08:23.990 --> 00:08:27.374 Just just a rough example of what we

NOTE Confidence: 0.8482356

 $00:08:27.374 \longrightarrow 00:08:31.116$ see and do on a pretty regular basis.

NOTE Confidence: 0.8482356

 $00:08:31.120 \longrightarrow 00:08:33.202$ The goals are primary brain tumor

NOTE Confidence: 0.8482356

 $00:08:33.202 \longrightarrow 00:08:35.070$ surgery are really quite simple.

NOTE Confidence: 0.8482356

 $00:08:35.070 \longrightarrow 00:08:35.732$ Of course,

NOTE Confidence: 0.8482356

 $00:08:35.732 \longrightarrow 00:08:37.718$ one is to establish a diagnosis

NOTE Confidence: 0.8482356

00:08:37.718 --> 00:08:39.380 to help guide further.

NOTE Confidence: 0.8482356

 $00:08:39.380 \longrightarrow 00:08:41.528$ Therapy is, but really it's important.

NOTE Confidence: 0.8482356

 $00:08:41.530 \longrightarrow 00:08:43.914$ A lot of times to respect as much

NOTE Confidence: 0.8482356

 $00:08:43.914 \longrightarrow 00:08:45.858$ tumor as possible to maintain

NOTE Confidence: 0.8482356

00:08:45.858 --> 00:08:47.983 or improve quality of life.

NOTE Confidence: 0.8482356

 $00:08:47.990 \longrightarrow 00:08:49.880$ We also know that that it has

NOTE Confidence: 0.8482356

 $00:08:49.880 \longrightarrow 00:08:52.036$ a huge impact in the overall

00:08:52.036 --> 00:08:53.744 survival and progression free

NOTE Confidence: 0.8482356

 $00{:}08{:}53.744 \dashrightarrow 00{:}08{:}55.530$ survival across various tumors.

NOTE Confidence: 0.8482356

 $00:08:55.530 \longrightarrow 00:08:57.325$ And then I'll talk about

NOTE Confidence: 0.8482356

 $00:08:57.325 \longrightarrow 00:08:59.120$ a little bit as well.

NOTE Confidence: 0.8482356

 $00:08:59.120 \longrightarrow 00:09:01.640$ And then, as Nick will will discuss,

NOTE Confidence: 0.8482356

00:09:01.640 --> 00:09:03.500 it's really important for clinical

NOTE Confidence: 0.8482356

 $00:09:03.500 \longrightarrow 00:09:04.988$ trial enrollment as well.

NOTE Confidence: 0.8482356

00:09:04.990 --> 00:09:05.962 Because of course,

NOTE Confidence: 0.8482356

 $00:09:05.962 \longrightarrow 00:09:08.682$ we all know for for some of the

NOTE Confidence: 0.8482356

00:09:08.682 --> 00:09:10.582 tumors the treatment does not

NOTE Confidence: 0.8482356

 $00{:}09{:}10.582 --> 00{:}09{:}12.600$ stop at just surgery alone.

NOTE Confidence: 0.8482356

 $00:09:12.600 \longrightarrow 00:09:15.752$ One thing that I think we have become

NOTE Confidence: 0.8482356

 $00:09:15.752 \longrightarrow 00:09:18.195$ really known for is is how do we?

NOTE Confidence: 0.8482356

 $00:09:18.200 \longrightarrow 00:09:20.181$ How are we able to remove tumors

NOTE Confidence: 0.8482356

 $00:09:20.181 \longrightarrow 00:09:21.994$ that that are otherwise deemed

NOTE Confidence: 0.8482356

 $00:09:21.994 \longrightarrow 00:09:23.798$ inoperable like Susie's an?

 $00:09:23.800 \longrightarrow 00:09:26.341$ I think there's there's a few a

NOTE Confidence: 0.8482356

 $00:09:26.341 \longrightarrow 00:09:29.521$ few reasons as to why one is we

NOTE Confidence: 0.8482356

00:09:29.521 --> 00:09:31.129 have sub specialized expertise

NOTE Confidence: 0.8482356

 $00:09:31.129 \longrightarrow 00:09:33.760$ and so all we do day in and day

NOTE Confidence: 0.8482356

00:09:33.760 --> 00:09:35.209 out is brain tumor surgery.

NOTE Confidence: 0.8482356

 $00:09:35.209 \longrightarrow 00:09:37.330$ I don't do any other type of

NOTE Confidence: 0.8482356

00:09:37.395 --> 00:09:39.003 surgery except for microvascular

NOTE Confidence: 0.8482356

00:09:39.003 --> 00:09:41.415 decompression which is a type of

NOTE Confidence: 0.8482356

00:09:41.481 --> 00:09:43.707 skull based surgery but beyond that.

NOTE Confidence: 0.8482356

 $00{:}09{:}43.710 \dashrightarrow 00{:}09{:}45.964$ Everything I do is focused on brain

NOTE Confidence: 0.8482356

 $00:09:45.964 \longrightarrow 00:09:47.925$ tumor surgery and I think there's

NOTE Confidence: 0.8482356

 $00:09:47.925 \longrightarrow 00:09:49.785$ something to be said for doing

NOTE Confidence: 0.8482356

 $00:09:49.785 \longrightarrow 00:09:51.798$ that literally every single day.

NOTE Confidence: 0.8482356

 $00{:}09{:}51.800 \to 00{:}09{:}53.774$ What's more is that we're subspecialized

NOTE Confidence: 0.8482356

 $00:09:53.774 \longrightarrow 00:09:55.949$ even based on the type of tumor,

 $00:09:55.950 \longrightarrow 00:09:57.858$ and so for primary brain tumors,

NOTE Confidence: 0.8482356

 $00:09:57.860 \longrightarrow 00:10:00.086$ which is my focus, Joe Pete Mayer,

NOTE Confidence: 0.8482356

 $00:10:00.090 \longrightarrow 00:10:02.010$ who's in the picture with me,

NOTE Confidence: 0.8482356

00:10:02.010 --> 00:10:04.236 has since retired and blend to my,

NOTE Confidence: 0.8482356

 $00:10:04.240 \longrightarrow 00:10:06.028$ has really stepped in and and

NOTE Confidence: 0.8482356

 $00:10:06.028 \longrightarrow 00:10:08.302$ has also been doing a lot of

NOTE Confidence: 0.8482356

 $00{:}10{:}08.302 \dashrightarrow 00{:}10{:}09.658$ primary brain tumor surgeries.

NOTE Confidence: 0.8482356

00:10:09.660 --> 00:10:10.620 But Veronica Chang,

NOTE Confidence: 0.8482356

 $00:10:10.620 \longrightarrow 00:10:11.900$ as you can see,

NOTE Confidence: 0.8482356

 $00:10:11.900 \longrightarrow 00:10:13.909$ there is the leader of our meta

NOTE Confidence: 0.8482356

 $00{:}10{:}13.909 \dashrightarrow 00{:}10{:}15.880$ static program and she focuses on

NOTE Confidence: 0.8482356

 $00:10:15.880 \longrightarrow 00:10:17.635$ on metastatic brain tumor surgery.

NOTE Confidence: 0.8482356

 $00:10:17.640 \longrightarrow 00:10:19.649$ And so I think that that really

NOTE Confidence: 0.8482356

 $00:10:19.649 \longrightarrow 00:10:21.876$ adds a lot of value because

NOTE Confidence: 0.8482356

 $00:10:21.876 \longrightarrow 00:10:23.596$ we're treating the patient.

NOTE Confidence: 0.8482356

 $00:10:23.600 \longrightarrow 00:10:27.176$ For the the overall cancer or

 $00{:}10{:}27.176 \dashrightarrow 00{:}10{:}30.580$ the overall Uncle logic problem.

NOTE Confidence: 0.8482356

 $00{:}10{:}30.580 \dashrightarrow 00{:}10{:}31.925$ There's other types of things

NOTE Confidence: 0.8482356

 $00:10:31.925 \longrightarrow 00:10:33.744$ in terms of the resources and

NOTE Confidence: 0.8482356

00:10:33.744 --> 00:10:35.420 infrastructure that's really important

NOTE Confidence: 0.8482356

00:10:35.420 --> 00:10:37.096 to making neurosurgery successful,

NOTE Confidence: 0.8482356

 $00:10:37.100 \longrightarrow 00:10:38.472$ and so it's standard.

NOTE Confidence: 0.8482356

00:10:38.472 --> 00:10:40.360 You know, everyone has GPS systems.

NOTE Confidence: 0.8482356

 $00:10:40.360 \longrightarrow 00:10:42.930$ I also tend to use an ultrasound,

NOTE Confidence: 0.8482356

 $00{:}10{:}42.930 \dashrightarrow 00{:}10{:}44.640$ which gives real time feedback,

NOTE Confidence: 0.8482356

 $00{:}10{:}44.640 \dashrightarrow 00{:}10{:}47.460$ and you can see there is a picture of me

NOTE Confidence: 0.85618085

 $00:10:47.540 \longrightarrow 00:10:49.448$ there using the ultrasound,

NOTE Confidence: 0.85618085

 $00{:}10{:}49.450 \dashrightarrow 00{:}10{:}51.358$ and that's a really large meningioma

NOTE Confidence: 0.85618085

 $00{:}10{:}51.358 \to 00{:}10{:}53.429$ and there's the middle cerebral artery

NOTE Confidence: 0.85618085

00:10:53.429 --> 00:10:55.279 that's black running through it,

NOTE Confidence: 0.85618085

00:10:55.280 --> 00:10:56.990 so having that frame of

00:10:56.990 --> 00:10:58.358 reference is always important.

NOTE Confidence: 0.85618085

 $00{:}10{:}58.360 \dashrightarrow 00{:}11{:}00.706$ And then the intra operative MRI.

NOTE Confidence: 0.85618085

 $00:11:00.710 \longrightarrow 00:11:03.400$ So we're the only center in the in the state

NOTE Confidence: 0.85618085

 $00:11:03.469 \longrightarrow 00:11:05.856$ that has an intra operative MRI really.

NOTE Confidence: 0.85618085

00:11:05.860 --> 00:11:06.832 Actually quite helpful,

NOTE Confidence: 0.85618085

 $00{:}11{:}06.832 \dashrightarrow 00{:}11{:}09.100$ and I'll show an example as to

NOTE Confidence: 0.85618085

 $00:11:09.165 \longrightarrow 00:11:11.181$ why even when we do these these

NOTE Confidence: 0.85618085

00:11:11.181 --> 00:11:12.829 surgeries day in and day out,

NOTE Confidence: 0.85618085

00:11:12.830 --> 00:11:14.618 it's really nice when the patients

NOTE Confidence: 0.85618085

 $00:11:14.618 \longrightarrow 00:11:16.940$ are still on the table to get a

NOTE Confidence: 0.85618085

00:11:16.940 --> 00:11:18.956 quick MRI that shows if there's any

NOTE Confidence: 0.85618085

 $00:11:18.956 \longrightarrow 00:11:21.008$ additional tumor that can be removed.

NOTE Confidence: 0.85618085

 $00:11:21.010 \longrightarrow 00:11:23.038$ We also have hybrid intra operative

NOTE Confidence: 0.85618085

 $00{:}11{:}23.038 \dashrightarrow 00{:}11{:}25.127$ angio suite capability is if we need

NOTE Confidence: 0.85618085

 $00:11:25.127 \longrightarrow 00:11:27.106$ to embolize a tumor and then I think

NOTE Confidence: 0.85618085

 $00{:}11{:}27.106 \dashrightarrow 00{:}11{:}29.430$ what really goes back to the sub

00:11:29.430 --> 00:11:31.009 specialized expertise is the ability

NOTE Confidence: 0.85618085

 $00{:}11{:}31.009 \dashrightarrow 00{:}11{:}32.524$ to do more sophisticated microsurgery.

NOTE Confidence: 0.85618085

 $00:11:32.530 \longrightarrow 00:11:34.570$ And I'll show an example.

NOTE Confidence: 0.85618085

 $00:11:34.570 \longrightarrow 00:11:35.815$ Those as well,

NOTE Confidence: 0.85618085

 $00:11:35.815 \longrightarrow 00:11:37.890$ so frequently doing functional mapping,

NOTE Confidence: 0.85618085

00:11:37.890 --> 00:11:38.720 motor mapping,

NOTE Confidence: 0.85618085

00:11:38.720 --> 00:11:40.795 language mapping during awake craniotomy,

NOTE Confidence: 0.85618085

 $00:11:40.800 \longrightarrow 00:11:43.290$ for instance with Susie for instance,

NOTE Confidence: 0.85618085

 $00:11:43.290 \longrightarrow 00:11:45.372$ allowed us to to safely remove

NOTE Confidence: 0.85618085

00:11:45.372 --> 00:11:47.820 as much tumor as possible while

NOTE Confidence: 0.85618085

 $00:11:47.820 \longrightarrow 00:11:50.760$ maintaining the function of the brain.

NOTE Confidence: 0.85618085

 $00:11:50.760 \longrightarrow 00:11:52.835$ And that's what's the goal

NOTE Confidence: 0.85618085

00:11:52.835 --> 00:11:54.080 in those surgeries.

NOTE Confidence: 0.85618085

 $00:11:54.080 \longrightarrow 00:11:57.600$ This was a slide that I was given by Bob

NOTE Confidence: 0.85618085

00:11:57.693 --> 00:12:01.130 Carter who's the chair of mass general,

 $00:12:01.130 \longrightarrow 00:12:04.203$ and I think this is a really

NOTE Confidence: 0.85618085

00:12:04.203 --> 00:12:05.520 interesting and good.

NOTE Confidence: 0.85618085

00:12:05.520 --> 00:12:05.944 Example,

NOTE Confidence: 0.85618085

 $00:12:05.944 \longrightarrow 00:12:08.064$ this basically shows that patient

NOTE Confidence: 0.85618085

00:12:08.064 --> 00:12:10.693 mortality is lowest for cranial surgery

NOTE Confidence: 0.85618085

 $00{:}12{:}10.693 \dashrightarrow 00{:}12{:}12.848$ among surgeons who perform cranial

NOTE Confidence: 0.85618085

00:12:12.848 --> 00:12:15.428 surgery the most and more regularly,

NOTE Confidence: 0.85618085

00:12:15.430 --> 00:12:18.878 and I think that really does hold true,

NOTE Confidence: 0.85618085

 $00:12:18.880 \longrightarrow 00:12:20.604$ particularly for more complex

NOTE Confidence: 0.85618085

00:12:20.604 --> 00:12:21.897 brain tumor surgeries,

NOTE Confidence: 0.85618085

 $00{:}12{:}21.900 \dashrightarrow 00{:}12{:}24.875$ and certainly having a high volume of

NOTE Confidence: 0.85618085

00:12:24.875 --> 00:12:27.947 cases and and doing these surgeries day

NOTE Confidence: 0.85618085

 $00:12:27.947 \longrightarrow 00:12:32.688$ in and day out, I think really does.

NOTE Confidence: 0.85618085

 $00:12:32.690 \longrightarrow 00:12:35.450$ Influence outcomes.

NOTE Confidence: 0.85618085

 $00:12:35.450 \longrightarrow 00:12:37.874$ This was a patient I shared with Nick

NOTE Confidence: 0.85618085

 $00:12:37.874 \longrightarrow 00:12:40.378$ and I think this is a good example

 $00:12:40.378 \longrightarrow 00:12:43.393$ of of why it's so important to be

NOTE Confidence: 0.85618085

 $00:12:43.393 \longrightarrow 00:12:45.548$ collaborative and to be collaborative

NOTE Confidence: 0.85618085

 $00:12:45.548 \longrightarrow 00:12:47.660$ with with other people in the

NOTE Confidence: 0.85618085

00:12:47.660 --> 00:12:49.340 Community to ensure that patients

NOTE Confidence: 0.85618085

 $00{:}12{:}49.398 \dashrightarrow 00{:}12{:}51.600$ really receive the best care possible.

NOTE Confidence: 0.85618085

 $00:12:51.600 \longrightarrow 00:12:54.016$ And so when he presented he was 63

NOTE Confidence: 0.85618085

00:12:54.016 --> 00:12:56.113 and had an expressive aphasia and

NOTE Confidence: 0.85618085

 $00:12:56.113 \longrightarrow 00:12:59.071$ so the top left you can see here

NOTE Confidence: 0.85618085

 $00{:}12{:}59.071 \dashrightarrow 00{:}13{:}00.981$ this was his preoperative scan

NOTE Confidence: 0.85618085

00:13:00.981 --> 00:13:03.554 that was done in December 2018 and

NOTE Confidence: 0.85618085

 $00:13:03.554 \longrightarrow 00:13:05.690$ you can see the tumor here.

NOTE Confidence: 0.85618085

 $00{:}13{:}05.690 \dashrightarrow 00{:}13{:}08.000$ Left sided GBM underneath the language

NOTE Confidence: 0.85618085

00:13:08.000 --> 00:13:10.290 area so obviously explaining his aphasia.

NOTE Confidence: 0.85618085

 $00{:}13{:}10.290 \dashrightarrow 00{:}13{:}13.242$ This is his post OP CIT and although

NOTE Confidence: 0.85618085

00:13:13.242 --> 00:13:16.231 it's not an MRI you can make out

 $00:13:16.231 \longrightarrow 00:13:18.563$ that there's still a fair amount

NOTE Confidence: 0.85618085

 $00{:}13{:}18.563 \dashrightarrow 00{:}13{:}21.377$ of tumor even after what was what

NOTE Confidence: 0.85618085

 $00:13:21.377 \longrightarrow 00:13:23.690$ was said to be a resection.

NOTE Confidence: 0.85618085

00:13:23.690 --> 00:13:25.988 This is his scan in January,

NOTE Confidence: 0.85618085

 $00:13:25.990 \longrightarrow 00:13:28.646$ so a few weeks later and you can

NOTE Confidence: 0.85618085

 $00:13:28.646 \longrightarrow 00:13:31.212$ see that the tumor that we see

NOTE Confidence: 0.85618085

 $00{:}13{:}31.212 \dashrightarrow 00{:}13{:}34.067$ here is very similar to what you

NOTE Confidence: 0.85618085

 $00:13:34.067 \longrightarrow 00:13:36.437$ see in the initial preoperative.

NOTE Confidence: 0.85618085

 $00{:}13{:}36.440 \dashrightarrow 00{:}13{:}38.635$ Scan and unfortunately I see

NOTE Confidence: 0.85618085

 $00:13:38.635 \longrightarrow 00:13:40.830$ patients like this often an

NOTE Confidence: 0.85618085

 $00{:}13{:}40.917 \dashrightarrow 00{:}13{:}43.427$ where they've undergone a quote,

NOTE Confidence: 0.85618085

00:13:43.430 --> 00:13:46.226 unquote open biopsy, or they pad,

NOTE Confidence: 0.85618085

00:13:46.230 --> 00:13:48.090 you know, limited reception,

NOTE Confidence: 0.85618085

 $00:13:48.090 \longrightarrow 00:13:49.020$ and that,

NOTE Confidence: 0.85618085

 $00:13:49.020 \longrightarrow 00:13:49.423$ really,

NOTE Confidence: 0.85618085

 $00:13:49.423 \longrightarrow 00:13:50.229$ you know,

 $00:13:50.229 \longrightarrow 00:13:53.667$ is is a shame because there are opportunities

NOTE Confidence: 0.85618085

 $00{:}13{:}53.667 \dashrightarrow 00{:}13{:}57.405$ to be more aggressive in others hands.

NOTE Confidence: 0.85618085

 $00:13:57.410 \longrightarrow 00:13:59.830$ So Nick actually saw the

NOTE Confidence: 0.85618085

00:13:59.830 --> 00:14:02.250 patient an noticed how aphasic

NOTE Confidence: 0.7926559

 $00:14:02.344 \longrightarrow 00:14:04.402$ he was an thought. Well,

NOTE Confidence: 0.7926559

 $00:14:04.402 \longrightarrow 00:14:08.178$ maybe he could have more of a reception.

NOTE Confidence: 0.7926559

 $00:14:08.180 \longrightarrow 00:14:10.547$ Performed so he sent him to me and a

NOTE Confidence: 0.7926559

 $00:14:10.547 \longrightarrow 00:14:12.728$ few days later had another functional

NOTE Confidence: 0.7926559

 $00:14:12.728 \longrightarrow 00:14:15.609$ MRI which allows us to see the function

NOTE Confidence: 0.7926559

00:14:15.609 --> 00:14:17.870 of the brain and so Broca's area

NOTE Confidence: 0.7926559

00:14:17.870 --> 00:14:20.124 you can't see it in this picture.

NOTE Confidence: 0.7926559

00:14:20.130 --> 00:14:22.384 But it was just overlying over here,

NOTE Confidence: 0.7926559

 $00:14:22.390 \longrightarrow 00:14:24.328$ and then the arcuate fasciculi us.

NOTE Confidence: 0.7926559

 $00:14:24.330 \longrightarrow 00:14:25.950$ You're starting to see there.

NOTE Confidence: 0.7926559

00:14:25.950 --> 00:14:29.180 I was able to do an awake craniotomy on him,

 $00:14:29.180 \longrightarrow 00:14:31.620$ which I'll show you an example of an

NOTE Confidence: 0.7926559

00:14:31.620 --> 00:14:34.016 then this is his post opera section,

NOTE Confidence: 0.7926559

 $00:14:34.020 \longrightarrow 00:14:35.874$ and of course, having the tumor

NOTE Confidence: 0.7926559

 $00:14:35.874 \longrightarrow 00:14:37.570$ removed really did influences outcome,

NOTE Confidence: 0.7926559

 $00:14:37.570 \longrightarrow 00:14:40.288$ which I'll show some examples of.

NOTE Confidence: 0.7926559

00:14:40.290 --> 00:14:42.820 This is a short video, but I think.

NOTE Confidence: 0.7926559

00:14:42.820 --> 00:14:45.064 Few minutes, not all that short,

NOTE Confidence: 0.7926559

00:14:45.064 --> 00:14:47.639 but I think a really good example

NOTE Confidence: 0.7926559

 $00{:}14{:}47.639 \dashrightarrow 00{:}14{:}49.937$ of what an awake craniotomy is

NOTE Confidence: 0.7926559

 $00:14:49.937 \longrightarrow 00:14:53.154$ and how we are able to to really

NOTE Confidence: 0.7926559

 $00{:}14{:}53.154 \dashrightarrow 00{:}14{:}55.144$ push the extent of resection.

NOTE Confidence: 0.8536503

 $00:14:57.470 \longrightarrow 00:14:58.650$ To a Fox 61

NOTE Confidence: 0.8536503

 $00:14:58.650 \longrightarrow 00:15:00.115$ exclusive now it's a nightmare

NOTE Confidence: 0.8536503

 $00{:}15{:}00.115 \dashrightarrow 00{:}15{:}01.287$ scenario when undergoing surgery.

NOTE Confidence: 0.8536503

 $00:15:01.290 \longrightarrow 00:15:03.299$ Waking up in the middle of the

NOTE Confidence: 0.8536503

00:15:03.299 --> 00:15:05.109 procedure and knowing what's going on.

 $00:15:05.110 \longrightarrow 00:15:07.756$ But in some cases that can be a lifesaver,

NOTE Confidence: 0.8536503

 $00:15:07.756 \longrightarrow 00:15:08.638$ lifesaver and necessary.

NOTE Confidence: 0.8536503

 $00:15:08.640 \longrightarrow 00:15:10.995$ We're going to explain that in a moment,

NOTE Confidence: 0.8536503

00:15:10.995 --> 00:15:13.355 but first we want to introduce you to

NOTE Confidence: 0.8536503

 $00:15:13.355 \longrightarrow 00:15:15.738$ a man named Andy Andy is a husband

NOTE Confidence: 0.8536503

 $00:15:15.738 \longrightarrow 00:15:18.052$ and father of two kids and a nurse.

NOTE Confidence: 0.8536503

00:15:18.052 --> 00:15:19.519 Another interesting fact about him,

NOTE Confidence: 0.8536503

 $00:15:19.519 \longrightarrow 00:15:21.279$ he's also a professionally trained singer.

NOTE Confidence: 0.8536503

 $00{:}15{:}21.280 \dashrightarrow 00{:}15{:}22.750$ He's even performed with his

NOTE Confidence: 0.8536503

00:15:22.750 --> 00:15:24.220 church choir at Carnegie Hall,

NOTE Confidence: 0.8536503

00:15:24.220 --> 00:15:27.460 but Andy felt his entire life come to a halt.

NOTE Confidence: 0.8536503

 $00:15:27.460 \longrightarrow 00:15:29.660$ When he was diagnosed with brain cancer,

NOTE Confidence: 0.8536503

 $00{:}15{:}29.660 \dashrightarrow 00{:}15{:}31.540$ he needed surgery to remove as

NOTE Confidence: 0.8536503

 $00:15:31.540 \longrightarrow 00:15:33.430$ much of a tumor as possible.

NOTE Confidence: 0.8536503

 $00:15:33.430 \longrightarrow 00:15:35.502$ That tumor in the part of his

 $00:15:35.502 \longrightarrow 00:15:36.880$ brain that controls speech.

NOTE Confidence: 0.8536503

 $00:15:36.880 \longrightarrow 00:15:37.822$ And, yes, singing.

NOTE Confidence: 0.8536503

 $00:15:37.822 \longrightarrow 00:15:40.020$ That's where a special surgery comes in.

NOTE Confidence: 0.8536503

 $00:15:40.020 \longrightarrow 00:15:40.950$ Surgeons at Yale,

NOTE Confidence: 0.8536503

 $00:15:40.950 \longrightarrow 00:15:42.500$ New Haven Smilow Cancer Hospital

NOTE Confidence: 0.8536503

 $00{:}15{:}42.500 \dashrightarrow 00{:}15{:}43.795$ have perfected a procedure

NOTE Confidence: 0.8536503

 $00{:}15{:}43.795 \dashrightarrow 00{:}15{:}45.035$ called in a wake craniotomy.

NOTE Confidence: 0.8536503

00:15:45.040 --> 00:15:46.696 They invited us into the operating

NOTE Confidence: 0.8536503

 $00:15:46.696 \longrightarrow 00:15:49.259$ room and we did not he sitate to see

NOTE Confidence: 0.8536503

 $00:15:49.259 \longrightarrow 00:15:51.009$ this incredible procedure first hand.

NOTE Confidence: 0.83831733

00:15:51.850 --> 00:15:52.490 I think you're right.

NOTE Confidence: 0.9019976

 $00:15:54.670 \longrightarrow 00:15:56.700$ In an operating room at Yale,

NOTE Confidence: 0.9019976

00:15:56.700 --> 00:15:59.480 New Haven Hospital. Doctors

NOTE Confidence: 0.7940856

 $00:15:59.480 \longrightarrow 00:16:01.236$ are working to remove it.

NOTE Confidence: 0.7940856

 $00:16:01.236 \longrightarrow 00:16:04.400$ Tumor from the brain of a 31 year old

NOTE Confidence: 0.7940856

 $00:16:04.400 \longrightarrow 00:16:06.850$ man named Andy. He is a singer.

 $00:16:06.850 \longrightarrow 00:16:09.310$ Yeah a husband and father of two.

NOTE Confidence: 0.8878196

 $00{:}16{:}10.710 \dashrightarrow 00{:}16{:}13.559$ Surgeries waking up in the middle of

NOTE Confidence: 0.8878196

 $00:16:13.559 \longrightarrow 00:16:15.520$ the operation would be a disaster.

NOTE Confidence: 0.8070778

00:16:17.640 --> 00:16:19.020 Today an anesthesiologist

NOTE Confidence: 0.8070778

 $00:16:19.020 \longrightarrow 00:16:21.320$ doing his best to make

NOTE Confidence: 0.8070778

 $00:16:21.320 \longrightarrow 00:16:23.620$ sure Andy does just that.

NOTE Confidence: 0.84695834

00:16:25.390 --> 00:16:26.838 Any Stacy surgeons have

NOTE Confidence: 0.84695834

 $00{:}16{:}26.840 \dashrightarrow 00{:}16{:}29.192$ drilled through his skull and have

NOTE Confidence: 0.84695834

 $00:16:29.192 \longrightarrow 00:16:31.920$ already begun to remove part of a tumor.

NOTE Confidence: 0.84695834

00:16:31.920 --> 00:16:33.740 Located on the left side

NOTE Confidence: 0.84695834

 $00:16:33.740 \longrightarrow 00:16:35.188$ of his temporal lobe,

NOTE Confidence: 0.84695834

 $00{:}16{:}35.188 \dashrightarrow 00{:}16{:}38.680$ the area which controls language.

NOTE Confidence: 0.84695834

 $00:16:38.680 \longrightarrow 00:16:41.661$ Medical staff puts a microphone on it if

NOTE Confidence: 0.84695834

 $00:16:41.661 \longrightarrow 00:16:45.020$ not for our cameras it so the entire room,

NOTE Confidence: 0.84695834

00:16:45.020 --> 00:16:46.528 including the operating surgeon,

 $00:16:46.528 \longrightarrow 00:16:49.120$ can hear what Andy has to set.

NOTE Confidence: 0.782905

 $00:16:51.310 \longrightarrow 00:16:53.065$ The procedure is called an

NOTE Confidence: 0.782905

 $00{:}16{:}53.065 \dashrightarrow 00{:}16{:}54.470$ awake craniotomy headache. I

NOTE Confidence: 0.782905

 $00:16:54.470 \longrightarrow 00:16:56.927$ was telling you earlier I I don't

NOTE Confidence: 0.782905

00:16:56.927 --> 00:16:59.380 know if it's from the brain surgery

NOTE Confidence: 0.782905

 $00:16:59.380 \longrightarrow 00:17:02.539$ or the fact that I ever had a Cup

NOTE Confidence: 0.782905

 $00:17:02.540 \longrightarrow 00:17:03.599$ of coffee. Is

NOTE Confidence: 0.782905

 $00:17:03.600 \longrightarrow 00:17:05.052$ forming physiologist Brooke Callaghan

NOTE Confidence: 0.782905

00:17:05.052 --> 00:17:07.460 sits next to him and begins her

NOTE Confidence: 0.782905

 $00:17:07.460 \longrightarrow 00:17:10.619$ work. I am going to say it sentence and

NOTE Confidence: 0.782905

00:17:10.620 --> 00:17:12.720 I want you to repeat after

NOTE Confidence: 0.782905

 $00:17:12.720 \longrightarrow 00:17:14.826$ me. The seashore smells like dog.

NOTE Confidence: 0.782905

 $00:17:14.830 \longrightarrow 00:17:15.880$ The seashore smells.

NOTE Confidence: 0.83499825

 $00:17:17.440 \longrightarrow 00:17:19.918$ Interaction can be heard on the

NOTE Confidence: 0.83499825

 $00:17:19.920 \longrightarrow 00:17:21.568$ speaker throughout the room.

NOTE Confidence: 0.83499825

 $00{:}17{:}21.570 \dashrightarrow 00{:}17{:}25.130$ Neurosurgeon Doctor Jennifer moliterno.

00:17:25.130 --> 00:17:26.870 Has mastered multi-tasking,

NOTE Confidence: 0.83499825

 $00:17:26.870 \longrightarrow 00:17:30.170$ operating and listening.

NOTE Confidence: 0.8340454

00:17:30.170 --> 00:17:31.139 Great Doctor Moliterno

NOTE Confidence: 0.8340454

 $00:17:31.140 \longrightarrow 00:17:33.310$ and her team worked diligently to remove

NOTE Confidence: 0.8340454

 $00{:}17{:}33.310 \dashrightarrow 00{:}17{:}35.638$ as much of the tumor as possible,

NOTE Confidence: 0.8340454

 $00:17:35.640 \longrightarrow 00:17:37.578$ which he can't see are critical

NOTE Confidence: 0.8340454

 $00:17:37.580 \longrightarrow 00:17:39.190$ microscopic language fibers which are

NOTE Confidence: 0.8340454

 $00{:}17{:}39.190 \dashrightarrow 00{:}17{:}41.758$ splayed over the tumor. The best way to

NOTE Confidence: 0.8340454

 $00:17:41.760 \longrightarrow 00:17:44.014$ try to remove as much tumor and

NOTE Confidence: 0.8340454

00:17:44.014 --> 00:17:45.629 preserve his language is to

NOTE Confidence: 0.8340454

 $00:17:45.630 \longrightarrow 00:17:47.880$ do it with him away. Get too

NOTE Confidence: 0.8340454

 $00:17:47.880 \longrightarrow 00:17:49.490$ close to those critical fibers.

NOTE Confidence: 0.8340454

 $00:17:49.490 \longrightarrow 00:17:51.420$ You'll know it. What do you

NOTE Confidence: 0.8340454

 $00:17:51.420 \longrightarrow 00:17:54.870$ do in a chair? Problem.

NOTE Confidence: 0.8959268

00:17:57.540 --> 00:17:58.419 I don't know.

00:18:00.140 --> 00:18:01.328 Little bit of confusion,

NOTE Confidence: 0.8755471

 $00{:}18{:}01.330 \dashrightarrow 00{:}18{:}04.600$ so that's a great way to me to tell me to,

NOTE Confidence: 0.8755471

 $00:18:04.600 \longrightarrow 00:18:06.020$ even though there might be

NOTE Confidence: 0.8755471

 $00:18:06.020 \longrightarrow 00:18:07.860$ a little bit of tumor there,

NOTE Confidence: 0.8755471

 $00:18:07.860 \longrightarrow 00:18:10.038$ the risk and benefit of removing

NOTE Confidence: 0.8755471

00:18:10.038 --> 00:18:12.140 that tumor and having him not

NOTE Confidence: 0.8755471

 $00:18:12.140 \longrightarrow 00:18:14.177$ speak for the rest of his life.

NOTE Confidence: 0.8755471

00:18:14.180 --> 00:18:16.708 Tells you exactly what the right decision is.

NOTE Confidence: 0.8755471

 $00{:}18{:}16.710 \dashrightarrow 00{:}18{:}18.915$ If he was a sleep, I would have

NOTE Confidence: 0.8557084

00:18:18.920 --> 00:18:21.122 had no idea as Doctor, Marla Turner

NOTE Confidence: 0.8557084

 $00{:}18{:}21.122 \dashrightarrow 00{:}18{:}22.988$ continues operating in a safer spot

NOTE Confidence: 0.8557084

 $00{:}18{:}22.988 \to 00{:}18{:}25.240$ and he surprises us when this happens.

NOTE Confidence: 0.84026587

 $00:18:31.510 \longrightarrow 00:18:34.380$ He does in the middle of surgery.

NOTE Confidence: 0.84026587

 $00:18:34.380 \longrightarrow 00:18:36.020$ Andy, a classically trained

NOTE Confidence: 0.84026587

 $00:18:36.020 \longrightarrow 00:18:37.660$ singer, shares his talent.

NOTE Confidence: 0.8429015

00:18:42.030 --> 00:18:43.110 You wanna half hours

 $00:18:43.110 \longrightarrow 00:18:44.784$ into the procedure dramal Aterno decides

NOTE Confidence: 0.8429015

 $00{:}18{:}44.784 \dashrightarrow 00{:}18{:}46.910$ it's time to wrap up. The surgeons are

NOTE Confidence: 0.8429015

00:18:46.910 --> 00:18:49.078 done with the first part of the surgery.

NOTE Confidence: 0.8429015

 $00:18:49.080 \longrightarrow 00:18:50.164$ So what's happening as

NOTE Confidence: 0.8429015

00:18:50.164 --> 00:18:51.519 they're bringing in an hour?

NOTE Confidence: 0.8429015

00:18:51.520 --> 00:18:52.880 I machine and they're going

NOTE Confidence: 0.8429015

 $00:18:52.880 \longrightarrow 00:18:54.793$ to look at the work that they

NOTE Confidence: 0.8429015

 $00:18:54.793 \longrightarrow 00:18:56.529$ did and see how much of the

NOTE Confidence: 0.8429015

 $00{:}18{:}56.529 \dashrightarrow 00{:}18{:}58.288$ tumor they were able to remove.

NOTE Confidence: 0.7530878

 $00:19:00.890 \longrightarrow 00:19:04.370$ Orange window and are able to sit with

NOTE Confidence: 0.7530878

00:19:04.370 --> 00:19:06.548 Doctor Maternal. She analyzes her

NOTE Confidence: 0.7530878

 $00:19:06.550 \longrightarrow 00:19:10.030$ work. The before here is the tumor answer.

NOTE Confidence: 0.91094863

 $00:19:13.370 \longrightarrow 00:19:14.497$ You don't have to go back in.

NOTE Confidence: 0.8078372

 $00:19:17.320 \longrightarrow 00:19:20.368$ Him being awake allowed us to get that

NOTE Confidence: 0.8078372

 $00:19:20.368 \longrightarrow 00:19:22.888$ outcome and preserve his function.

00:19:22.890 --> 00:19:25.081 Now Andy was back home with his

NOTE Confidence: 0.8078372

00:19:25.081 --> 00:19:27.029 family two days after surgery,

NOTE Confidence: 0.8078372

 $00:19:27.030 \longrightarrow 00:19:28.760$ five days after the surgery,

NOTE Confidence: 0.8078372

 $00:19:28.760 \longrightarrow 00:19:31.856$ he was able to sing at his son's baptism.

NOTE Confidence: 0.8078372

 $00:19:31.860 \longrightarrow 00:19:33.786$ He's also saying again with his

NOTE Confidence: 0.8078372

00:19:33.786 --> 00:19:35.999 church choir and the Yale Camerata,

NOTE Confidence: 0.8078372

 $00:19:36.000 \longrightarrow 00:19:37.730$ which is a professional choir.

NOTE Confidence: 0.8078372

 $00:19:37.730 \longrightarrow 00:19:40.250$ Just a couple of weeks ago and he is

NOTE Confidence: 0.8078372

 $00{:}19{:}40.250 \to 00{:}19{:}42.208$ undergoing chemotherapy and radiation.

NOTE Confidence: 0.8078372

 $00:19:42.210 \longrightarrow 00:19:44.280$ But he does say he's feeling

NOTE Confidence: 0.8078372

 $00{:}19{:}44.280 \to 00{:}19{:}46.350$ good and of course, warm wishes.

NOTE Confidence: 0.8078372

 $00:19:46.350 \longrightarrow 00:19:47.730$ Kim is equal fast.

NOTE Confidence: 0.84137017

 $00:19:49.160 \longrightarrow 00:19:54.083$ This is really why we do what we do.

NOTE Confidence: 0.84137017

00:19:54.090 --> 00:19:56.477 Not every patient needs to be awake

NOTE Confidence: 0.84137017

 $00:19:56.477 \longrightarrow 00:19:59.246$ to still have that sort of an outcome,

NOTE Confidence: 0.84137017

 $00:19:59.250 \longrightarrow 00:20:01.308$ and so this was a patient.

 $00:20:01.310 \longrightarrow 00:20:03.272$ You can see the date 2013

NOTE Confidence: 0.84137017

 $00:20:03.272 \longrightarrow 00:20:05.440$ he was 40 at the time,

NOTE Confidence: 0.84137017

 $00:20:05.440 \longrightarrow 00:20:07.869$ father of two and went to another

NOTE Confidence: 0.84137017

00:20:07.869 --> 00:20:10.715 hospital and had a biopsy because it was

NOTE Confidence: 0.84137017

 $00:20:10.715 \dashrightarrow 00:20:13.700$ felt that this lesion that you can see here,

NOTE Confidence: 0.84137017

00:20:13.700 --> 00:20:16.444 which is a glioblastoma Perry 8 real located,

NOTE Confidence: 0.84137017

 $00:20:16.450 \longrightarrow 00:20:18.508$ was too high risk for reception.

NOTE Confidence: 0.84137017

 $00:20:18.510 \longrightarrow 00:20:20.799$ After his biopsy he was referred down

NOTE Confidence: 0.84137017

 $00:20:20:799 \longrightarrow 00:20:23.733$ to me for resection and I thought that

NOTE Confidence: 0.84137017

 $00:20:23.733 \longrightarrow 00:20:26.239$ we could safely resect it using a.

NOTE Confidence: 0.84137017

 $00{:}20{:}26.240 \dashrightarrow 00{:}20{:}27.564$ And translocal approach and

NOTE Confidence: 0.84137017

 $00:20:27.564 \longrightarrow 00:20:28.888$ really preserving the cortex.

NOTE Confidence: 0.84137017

 $00:20:28.890 \longrightarrow 00:20:30.888$ This is a good case example

NOTE Confidence: 0.84137017

 $00:20:30.888 \longrightarrow 00:20:32.530$ of how even for me,

NOTE Confidence: 0.84137017

 $00:20:32.530 \longrightarrow 00:20:34.516$ someone who does this literally every

00:20:34.516 --> 00:20:36.502 single day removing tumors, brain tumors,

NOTE Confidence: 0.84137017

00:20:36.502 --> 00:20:38.488 I can still leave tumor behind.

NOTE Confidence: 0.84137017

 $00:20:38.490 \longrightarrow 00:20:41.178$ So this is the beauty of the intra

NOTE Confidence: 0.84137017

00:20:41.178 --> 00:20:43.119 operative MRI you can see here.

NOTE Confidence: 0.84137017

00:20:43.120 --> 00:20:45.437 There's a little bit of residual tumor,

NOTE Confidence: 0.84137017

 $00:20:45.440 \longrightarrow 00:20:48.112$ a little bit there that really just got

NOTE Confidence: 0.84137017

 $00:20:48.112 \longrightarrow 00:20:50.067$ tucked underneath the brain and hidden.

NOTE Confidence: 0.84137017

 $00:20:50.070 \longrightarrow 00:20:52.068$ And this is our intra operative

NOTE Confidence: 0.84137017

00:20:52.068 --> 00:20:54.220 MRI that runs back and forth

NOTE Confidence: 0.84137017

00:20:54.220 --> 00:20:56.470 between two of our operating rooms.

NOTE Confidence: 0.84137017

 $00{:}20{:}56.470 \dashrightarrow 00{:}20{:}58.926$ So I went back while he was on

NOTE Confidence: 0.84137017

 $00:20:58.926 \longrightarrow 00:21:00.998$ the table and didn't take much

NOTE Confidence: 0.84137017

 $00:21:00.998 \longrightarrow 00:21:04.025$ much time at all and was able to

NOTE Confidence: 0.84137017

 $00{:}21{:}04.025 \dashrightarrow 00{:}21{:}06.215$ achieve a gross total resection.

NOTE Confidence: 0.84137017

00:21:06.220 --> 00:21:07.664 He had, you know,

NOTE Confidence: 0.84137017

 $00{:}21{:}07.664 \dashrightarrow 00{:}21{:}09.469$ an MGM T unmethylated tumor.

00:21:09.470 --> 00:21:11.875 Pretty poor in terms of

NOTE Confidence: 0.84137017

 $00{:}21{:}11.875 \dashrightarrow 00{:}21{:}13.799$ prognosis you would think.

NOTE Confidence: 0.84137017

 $00:21:13.800 \longrightarrow 00:21:16.957$ He went on to be managed by.

NOTE Confidence: 0.84137017

 $00:21:16.960 \longrightarrow 00:21:19.810$ You are comparing ofner oncology Ann

NOTE Confidence: 0.84137017

 $00:21:19.810 \longrightarrow 00:21:22.489$ and underwent stupid therapy and then

NOTE Confidence: 0.84137017

 $00:21:22.489 \longrightarrow 00:21:25.297$ ended up getting enrolled in one of our

NOTE Confidence: 0.84137017

 $00:21:25.371 \longrightarrow 00:21:27.926$ own homegrown novel clinical trials

NOTE Confidence: 0.84137017

 $00:21:27.926 \longrightarrow 00:21:30.481$ that Ranjeet Bindra had developed.

NOTE Confidence: 0.84137017

00:21:30.490 --> 00:21:31.378 He progressed,

NOTE Confidence: 0.84137017

00:21:31.378 --> 00:21:33.598 he was enrolled in another

NOTE Confidence: 0.84137017

 $00:21:33.598 \longrightarrow 00:21:36.724$ clinical trial and then went on to

NOTE Confidence: 0.84137017

 $00{:}21{:}36.724 \dashrightarrow 00{:}21{:}38.440$ bevacizumab and then progressed

NOTE Confidence: 0.84137017

 $00{:}21{:}38.440 \dashrightarrow 00{:}21{:}40.858$ about four years after surgery,

NOTE Confidence: 0.84137017

00:21:40.860 --> 00:21:43.295 3 1/2 years after surgery

NOTE Confidence: 0.84137017

 $00:21:43.295 \longrightarrow 00:21:45.730$ on Bevis is in math.

 $00:21:45.730 \longrightarrow 00:21:48.250$ It was held that you can see.

NOTE Confidence: 0.84137017

 $00:21:48.250 \longrightarrow 00:21:49.905$ Here is his recurrence and

NOTE Confidence: 0.84137017

00:21:49.905 --> 00:21:52.210 I took him back for surgery.

NOTE Confidence: 0.84137017

 $00:21:52.210 \longrightarrow 00:21:55.218$ This time I did a wider resection and

NOTE Confidence: 0.84137017

00:21:55.218 --> 00:21:57.970 what's nice is as I had mentioned.

NOTE Confidence: 0.84137017

00:21:57.970 --> 00:21:59.945 We performed whole exome sequencing

NOTE Confidence: 0.84137017

00:21:59.945 --> 00:22:02.859 on every patient and so here what you

NOTE Confidence: 0.84137017

 $00:22:02.859 \longrightarrow 00:22:05.328$ can see basically is he has a hyper

NOTE Confidence: 0.84137017

 $00:22:05.328 \longrightarrow 00:22:07.620$ mutated phenotype and we know that

NOTE Confidence: 0.84137017

00:22:07.620 --> 00:22:09.685 these tumors can be more suseptable

NOTE Confidence: 0.84137017

00:22:09.685 --> 00:22:11.515 an more amenable to treatment with

NOTE Confidence: 0.84137017

 $00:22:11.515 \longrightarrow 00:22:13.448$ immune mediated checkpoint inhibitors.

NOTE Confidence: 0.84137017

 $00:22:13.450 \longrightarrow 00:22:17.098$ So post operatively, he was put on niveau.

NOTE Confidence: 0.84137017

00:22:17.100 --> 00:22:19.398 He progressed despite Niveau an Avastin,

NOTE Confidence: 0.84137017

 $00:22:19.400 \longrightarrow 00:22:22.442$ an I really respected him I in 2019 and

NOTE Confidence: 0.84137017

00:22:22.442 --> 00:22:25.928 you can see him there with Monica Lawrence,

00:22:25.930 --> 00:22:28.618 one of our outstanding or oncology piese.

NOTE Confidence: 0.84137017

 $00:22:28.620 \longrightarrow 00:22:31.308$ So he's currently doing well on deficits.

NOTE Confidence: 0.84137017

00:22:31.310 --> 00:22:34.313 Maben Niveau 7 1/2 years after his

NOTE Confidence: 0.84137017

 $00:22:34.313 \longrightarrow 00:22:36.679$ initial diagnosis and so no way am.

NOTE Confidence: 0.84137017

 $00{:}22{:}36.680 \dashrightarrow 00{:}22{:}40.090$ I trying to sit here and say that all of

NOTE Confidence: 0.84137017

00:22:40.183 --> 00:22:43.599 our GBM patients are living 7 1/2 years.

NOTE Confidence: 0.84137017

 $00:22:43.600 \longrightarrow 00:22:45.136$ I certainly wish that

NOTE Confidence: 0.84137017

 $00:22:45.136 \longrightarrow 00:22:47.440$ was the case in one day.

NOTE Confidence: 0.84137017

 $00:22:47.440 \longrightarrow 00:22:48.194 \text{ I am}.$

NOTE Confidence: 0.84137017

 $00:22:48.194 \longrightarrow 00:22:50.456$ Hopefully that will be the case,

NOTE Confidence: 0.84137017

 $00:22:50.460 \longrightarrow 00:22:52.707$ but I do know that if he

NOTE Confidence: 0.84137017

 $00:22:52.707 \longrightarrow 00:22:54.750$ had stopped at that biopsy,

NOTE Confidence: 0.84137017

 $00:22:54.750 \longrightarrow 00:22:56.898$ he definitely would not be here.

NOTE Confidence: 0.84137017

00:22:56.900 --> 00:22:59.000 7 1/2 years later and so

NOTE Confidence: 0.84137017

 $00:22:59.000 \longrightarrow 00:23:00.400$ really being aggressive with

00:23:00.470 --> 00:23:02.700 surgery and safe with surgery

NOTE Confidence: 0.85780776

00:23:02.700 --> 00:23:04.038 is incredibly important.

NOTE Confidence: 0.85780776

 $00{:}23{:}04.040 \dashrightarrow 00{:}23{:}05.572$ Switching gears real quick

NOTE Confidence: 0.85780776

 $00:23:05.572 \longrightarrow 00:23:07.870$ before I hand over to Nick.

NOTE Confidence: 0.85780776

00:23:07.870 --> 00:23:10.243 This is a patient with what looks

NOTE Confidence: 0.85780776

 $00:23:10.243 \longrightarrow 00:23:12.080$ like a convexity meningioma.

NOTE Confidence: 0.85780776

00:23:12.080 --> 00:23:13.995 He's an older gentleman who

NOTE Confidence: 0.85780776

 $00:23:13.995 \longrightarrow 00:23:15.910$ initially had surgery in 2015.

NOTE Confidence: 0.85780776

 $00:23:15.910 \longrightarrow 00:23:17.830$ I don't have those scans,

NOTE Confidence: 0.85780776

 $00:23:17.830 \longrightarrow 00:23:20.935$ but so was told he had a gross told

NOTE Confidence: 0.85780776

 $00:23:20.935 \longrightarrow 00:23:23.956$ over section of a benign grade one.

NOTE Confidence: 0.85780776

 $00{:}23{:}23.960 \to 00{:}23{:}26.634$ Meningioma told not to worry about it.

NOTE Confidence: 0.85780776

 $00:23:26.640 \longrightarrow 00:23:30.744$ 2017 he had this growth that you can see.

NOTE Confidence: 0.85780776

 $00:23:30.750 \longrightarrow 00:23:32.365$ He had options and actually

NOTE Confidence: 0.85780776

00:23:32.365 --> 00:23:35.033 went to New York City for those

NOTE Confidence: 0.85780776

 $00{:}23{:}35.033 \dashrightarrow 00{:}23{:}36.500$ and underwent radio surgery.

 $00:23:36.500 \longrightarrow 00:23:39.174$ He had complications with stroke and MI,

NOTE Confidence: 0.85780776

 $00:23:39.180 \longrightarrow 00:23:41.466$ and then intractable seizures and weaknesses.

NOTE Confidence: 0.85780776

 $00:23:41.470 \longrightarrow 00:23:44.534$ So when he presented to me in 2019,

NOTE Confidence: 0.85780776

 $00:23:44.540 \longrightarrow 00:23:48.370$ he had this tumor and he was in a wheelchair.

NOTE Confidence: 0.85780776

 $00:23:48.370 \longrightarrow 00:23:51.044$ And so I achieved gross total resection.

NOTE Confidence: 0.85780776

 $00{:}23{:}51.050 \dashrightarrow 00{:}23{:}52.965$ His weakness improved and his

NOTE Confidence: 0.85780776

 $00:23:52.965 \longrightarrow 00:23:54.497$ seizures improved as well.

NOTE Confidence: 0.85780776

 $00:23:54.500 \longrightarrow 00:23:56.084$ But the question is,

NOTE Confidence: 0.85780776

 $00:23:56.084 \longrightarrow 00:23:58.460$ could this have been better predicted

NOTE Confidence: 0.85780776

 $00:23:58.532 \longrightarrow 00:24:01.058$ an manage differently the first time?

NOTE Confidence: 0.85780776

 $00:24:01.060 \longrightarrow 00:24:03.510$ And this is where our work behind

NOTE Confidence: 0.85780776

 $00:24:03.510 \longrightarrow 00:24:05.910$ the scenes is really important.

NOTE Confidence: 0.85780776

 $00{:}24{:}05.910 \dashrightarrow 00{:}24{:}07.522$ An even within neurosurgery.

NOTE Confidence: 0.85780776

 $00:24:07.522 \longrightarrow 00:24:09.537$ And so Moroccan ALS lab,

NOTE Confidence: 0.85780776

 $00:24:09.540 \longrightarrow 00:24:10.988$ as well as others,

 $00:24:10.988 \longrightarrow 00:24:12.798$ have really understood what the

NOTE Confidence: 0.85780776

 $00:24:12.798 \longrightarrow 00:24:14.648$ somatic genomic landscape of

NOTE Confidence: 0.85780776

00:24:14.648 --> 00:24:16.797 approximately 80% of grade one

NOTE Confidence: 0.85780776

 $00:24:16.797 \longrightarrow 00:24:19.191$ meningioma czar and more recently we

NOTE Confidence: 0.85780776

 $00:24:19.191 \longrightarrow 00:24:21.890$ have correlated this with outcomes.

NOTE Confidence: 0.85780776

00:24:21.890 --> 00:24:24.396 I won't go into the details now,

NOTE Confidence: 0.85780776

 $00:24:24.400 \longrightarrow 00:24:26.710$ but would be happy to do so

NOTE Confidence: 0.85780776

 $00:24:26.710 \longrightarrow 00:24:29.049$ in a talk in the future,

NOTE Confidence: 0.85780776

00:24:29.050 --> 00:24:30.390 but basically there's six

NOTE Confidence: 0.85780776

00:24:30.390 --> 00:24:31.730 subgroups of meningiomas based

NOTE Confidence: 0.85780776

 $00{:}24{:}31.730 \dashrightarrow 00{:}24{:}33.699$ on their genomic driver mutation,

NOTE Confidence: 0.85780776

 $00:24:33.700 \longrightarrow 00:24:37.356$ and this was published in Science in 2013.

NOTE Confidence: 0.85780776

00:24:37.360 --> 00:24:39.622 When I was a fellow at

NOTE Confidence: 0.85780776

00:24:39.622 --> 00:24:40.753 Memorial Sloan Kettering,

NOTE Confidence: 0.85780776

00:24:40.760 --> 00:24:43.220 I did work that really understood

NOTE Confidence: 0.85780776

 $00:24:43.220 \longrightarrow 00:24:44.860$ that more aggressive meningiomas

00:24:44.924 --> 00:24:47.084 could present Dinovo or they could

NOTE Confidence: 0.85780776

 $00{:}24{:}47.084 \dashrightarrow 00{:}24{:}49.460$ progress from low grade to high grade,

NOTE Confidence: 0.85780776

 $00:24:49.460 \longrightarrow 00:24:50.459$ much like gliomas.

NOTE Confidence: 0.85780776

 $00:24:50.459 \longrightarrow 00:24:53.257$ Marotte also looked at that from a more

NOTE Confidence: 0.85780776

 $00{:}24{:}53.257 \dashrightarrow 00{:}24{:}55.237$ basic science perspective and Anne

NOTE Confidence: 0.85780776

 $00:24:55.237 \longrightarrow 00:24:57.677$ found the mechanisms to explain that

NOTE Confidence: 0.85780776

00:24:57.677 --> 00:25:00.035 usually these tumors are NFT mutated,

NOTE Confidence: 0.85780776

 $00:25:00.040 \longrightarrow 00:25:01.174$ were in Mail,

NOTE Confidence: 0.85780776

 $00{:}25{:}01.174 \dashrightarrow 00{:}25{:}02.308$ acquire chromosomal instability

NOTE Confidence: 0.85780776

00:25:02.308 --> 00:25:03.820 or smart Bianco mutation,

NOTE Confidence: 0.85780776

 $00{:}25{:}03.820 \dashrightarrow 00{:}25{:}05.650$ and then become Dinovo atypical

NOTE Confidence: 0.85780776

 $00:25:05.650 \longrightarrow 00:25:07.950$ meningiom as as opposed to the ones

NOTE Confidence: 0.85780776

 $00{:}25{:}07.950 \dashrightarrow 00{:}25{:}10.000$ that harbor Terr promoter mutations.

NOTE Confidence: 0.85780776

 $00:25:10.000 \longrightarrow 00:25:12.600$ And progress.

NOTE Confidence: 0.85780776

 $00{:}25{:}12.600 \dashrightarrow 00{:}25{:}15.183$ What I was alluding to before was

00:25:15.183 --> 00:25:18.055 that in a in a recent publication

NOTE Confidence: 0.85780776

 $00:25:18.055 \longrightarrow 00:25:20.575$ of ours a few months ago,

NOTE Confidence: 0.85780776

 $00:25:20.580 \longrightarrow 00:25:22.818$ for the first time we have

NOTE Confidence: 0.85780776

00:25:22.818 --> 00:25:23.937 identified these molecular

NOTE Confidence: 0.85780776

00:25:23.937 --> 00:25:26.066 subgroups of meningiomas to be

NOTE Confidence: 0.85780776

00:25:26.066 --> 00:25:27.754 independent predictor of recurrence,

NOTE Confidence: 0.85780776

 $00:25:27.760 \longrightarrow 00:25:30.912$ and so we found that there is divergent

NOTE Confidence: 0.85780776

 $00:25:30.912 \longrightarrow 00:25:33.180$ clinical courses amongst meningiomas.

NOTE Confidence: 0.85780776

 $00{:}25{:}33.180 \dashrightarrow 00{:}25{:}34.440$ For aggressive subgroups,

NOTE Confidence: 0.85780776

 $00:25:34.440 \longrightarrow 00:25:36.540$ which are NFT mutated tumors,

NOTE Confidence: 0.85780776

 $00:25:36.540 \longrightarrow 00:25:39.613$ trap 7 mutated tumors and those that

NOTE Confidence: 0.85780776

 $00:25:39.613 \longrightarrow 00:25:42.417$ have molecules that are mutated in PR.

NOTE Confidence: 0.85780776 00:25:42.420 --> 00:25:42.903 3, NOTE Confidence: 0.85780776

 $00:25:42.903 \longrightarrow 00:25:44.835$ kinase and hedgehog signaling

NOTE Confidence: 0.85780776

 $00:25:44.835 \longrightarrow 00:25:46.767$ pathways versus more quiescent

NOTE Confidence: 0.85780776

 $00{:}25{:}46.767 \dashrightarrow 00{:}25{:}48.804$ types of meningiomas that have

 $00:25:48.804 \longrightarrow 00:25:51.828$ Kayla for polar two ANS mark be one

NOTE Confidence: 0.85780776

 $00{:}25{:}51.828 \dashrightarrow 00{:}25{:}54.179$ commutations and so we have even

NOTE Confidence: 0.85780776

 $00:25:54.179 \longrightarrow 00:25:56.693$ found that this holds true amongst

NOTE Confidence: 0.85780776

 $00:25:56.693 \longrightarrow 00:25:59.257$ grade one meningiomas and so grade

NOTE Confidence: 0.85780776

00:25:59.257 --> 00:26:01.317 one convexity chip shot meningioma,

NOTE Confidence: 0.85780776

 $00:26:01.320 \longrightarrow 00:26:04.330$ like the one that I just described.

NOTE Confidence: 0.85780776

 $00:26:04.330 \longrightarrow 00:26:05.970$ Is not necessarily a grade

NOTE Confidence: 0.85780776

 $00:26:05.970 \longrightarrow 00:26:06.954$ one benign meningioma,

NOTE Confidence: 0.85780776

 $00{:}26{:}06.960 \dashrightarrow 00{:}26{:}09.090$ and so it's really important for

NOTE Confidence: 0.85780776

 $00:26:09.090 \longrightarrow 00:26:10.510$ meningiomas in particular to

NOTE Confidence: 0.85780776

 $00{:}26{:}10.570 \dashrightarrow 00{:}26{:}12.526$ realize that they're not as benign

NOTE Confidence: 0.85780776

 $00:26:12.526 \longrightarrow 00:26:14.528$ as everyone thinks of them to be.

NOTE Confidence: 0.85780776

 $00:26:14.530 \longrightarrow 00:26:16.763$ So when we go back to this

NOTE Confidence: 0.85780776

00:26:16.763 --> 00:26:18.150 patient could have that.

NOTE Confidence: 0.85780776

 $00:26:18.150 \longrightarrow 00:26:19.790$ Could this have been better

 $00:26:19.790 \longrightarrow 00:26:21.430$ predicted and manage the first

NOTE Confidence: 0.860762

 $00:26:21.487 \longrightarrow 00:26:23.410$ time? And the answer is yes,

NOTE Confidence: 0.860762

 $00:26:23.410 \longrightarrow 00:26:26.011$ and so this is an example of our whole

NOTE Confidence: 0.860762

 $00:26:26.011 \longrightarrow 00:26:28.858$ exome sequencing report that we have on each

NOTE Confidence: 0.860762

 $00:26:28.858 \longrightarrow 00:26:31.639$ of our patients tumors and what we found.

NOTE Confidence: 0.860762

 $00:26:31.640 \longrightarrow 00:26:34.997$ As you can see here is first of all.

NOTE Confidence: 0.860762

 $00:26:35.000 \longrightarrow 00:26:37.050$ The Histology with atypical meningioma,

NOTE Confidence: 0.860762

 $00:26:37.050 \longrightarrow 00:26:39.504$ but we found that the patient

NOTE Confidence: 0.860762

 $00:26:39.504 \longrightarrow 00:26:41.140$ had an NF2 mutation.

NOTE Confidence: 0.860762

00:26:41.140 --> 00:26:42.776 Ann had chromosomal instability,

NOTE Confidence: 0.860762

00:26:42.776 --> 00:26:45.230 particularly with the chromosome 1P deletion,

NOTE Confidence: 0.860762

00:26:45.230 --> 00:26:48.494 but quite a bit of copy number alterations,

NOTE Confidence: 0.860762

 $00:26:48.500 \longrightarrow 00:26:50.540$ suggesting that this was a

NOTE Confidence: 0.860762

 $00{:}26{:}50.540 \dashrightarrow 00{:}26{:}51.764$ denovo atypical meningioma,

NOTE Confidence: 0.860762

 $00:26:51.770 \longrightarrow 00:26:55.442$ and so this was a typical from the start,

NOTE Confidence: 0.860762

 $00:26:55.450 \longrightarrow 00:26:57.082$ and typically we followed

 $00{:}26{:}57.082 \dashrightarrow 00{:}26{:}58.714$ these patients either closely,

NOTE Confidence: 0.860762

 $00:26:58.720 \longrightarrow 00:27:01.590$ very closely, or we radiate up front,

NOTE Confidence: 0.860762

 $00:27:01.590 \longrightarrow 00:27:05.430$ which is more more typically what we do.

NOTE Confidence: 0.860762

 $00:27:05.430 \longrightarrow 00:27:06.639$ And so again,

NOTE Confidence: 0.860762

 $00:27:06.639 \longrightarrow 00:27:08.654$ another example of how really

NOTE Confidence: 0.860762

 $00:27:08.654 \longrightarrow 00:27:10.859$ understanding the tumors is important.

NOTE Confidence: 0.860762

 $00:27:10.860 \longrightarrow 00:27:13.450$ An back in the Science Paper 2013

NOTE Confidence: 0.860762

 $00{:}27{:}13.450 \dashrightarrow 00{:}27{:}16.067$ and more recent in a publication

NOTE Confidence: 0.860762

00:27:16.067 --> 00:27:17.967 in Journal of Neurosurgery,

NOTE Confidence: 0.860762

 $00:27:17.970 \longrightarrow 00:27:20.202$ we also have shown that these

NOTE Confidence: 0.860762

 $00{:}27{:}20.202 \dashrightarrow 00{:}27{:}22.245$ genomic subgroups can be predicted

NOTE Confidence: 0.860762

 $00{:}27{:}22.245 \dashrightarrow 00{:}27{:}24.655$ based on intra cranial location.

NOTE Confidence: 0.860762

 $00{:}27{:}24.660 \dashrightarrow 00{:}27{:}27.693$ So we use this all the time in our

NOTE Confidence: 0.860762

 $00:27:27.693 \longrightarrow 00:27:29.587$ clinics where just understanding

NOTE Confidence: 0.860762

00:27:29.587 --> 00:27:33.017 where the location is will say yeah,

 $00:27:33.020 \longrightarrow 00:27:36.079$ that's likely to be this mutated meningioma.

NOTE Confidence: 0.860762

 $00:27:36.080 \longrightarrow 00:27:37.970$ And based on the neuron College

NOTE Confidence: 0.860762

 $00:27:37.970 \longrightarrow 00:27:38.600$ paper recently,

NOTE Confidence: 0.860762

 $00:27:38.600 \longrightarrow 00:27:40.442$ summers are going to behave more

NOTE Confidence: 0.860762

 $00:27:40.442 \longrightarrow 00:27:42.041$ aggressively and it really does

NOTE Confidence: 0.860762

00:27:42.041 --> 00:27:43.955 influence how we treat these patients.

NOTE Confidence: 0.860762

 $00:27:43.960 \longrightarrow 00:27:46.158$ Of course, not everything ends with surgery.

NOTE Confidence: 0.860762

 $00:27:46.160 \longrightarrow 00:27:47.740$ I wish that it did,

NOTE Confidence: 0.860762

 $00{:}27{:}47.740 \dashrightarrow 00{:}27{:}49.660$ and that you know patients could

NOTE Confidence: 0.860762

 $00:27:49.660 \longrightarrow 00:27:51.200$ be cured and move on,

NOTE Confidence: 0.860762

 $00:27:51.200 \longrightarrow 00:27:53.090$ but unfortunately that's not the case.

NOTE Confidence: 0.860762

 $00:27:53.090 \longrightarrow 00:27:54.670$ And what we deal with,

NOTE Confidence: 0.860762

 $00:27:54.670 \longrightarrow 00:27:56.721$ and so that's why we have our

NOTE Confidence: 0.860762

00:27:56.721 --> 00:27:57.968 precision brain tumor treatment

NOTE Confidence: 0.860762

00:27:57.968 --> 00:27:59.828 program an our tumor board that

NOTE Confidence: 0.860762

 $00:27:59.828 \longrightarrow 00:28:01.910$ that we need and discuss weekly.

 $00:28:01.910 \longrightarrow 00:28:02.696$ And of course,

NOTE Confidence: 0.860762

 $00:28:02.696 \longrightarrow 00:28:04.530$ we could not do what we do

NOTE Confidence: 0.860762

 $00:28:04.595 \longrightarrow 00:28:06.640$ without support of our patients.

NOTE Confidence: 0.860762

 $00:28:06.640 \longrightarrow 00:28:08.250$ And so Connecticut Brain Tumor

NOTE Confidence: 0.860762

 $00:28:08.250 \longrightarrow 00:28:09.860$ Alliance has been amazing supporting.

NOTE Confidence: 0.860762

00:28:09.860 --> 00:28:11.615 Some of the meningioma research

NOTE Confidence: 0.860762

00:28:11.615 --> 00:28:13.019 that I just discussed,

NOTE Confidence: 0.860762

 $00:28:13.020 \longrightarrow 00:28:14.770$ especially all the clinical correlations,

NOTE Confidence: 0.860762

00:28:14.770 --> 00:28:16.525 research that I just discussed

NOTE Confidence: 0.860762

 $00{:}28{:}16.525 \dashrightarrow 00{:}28{:}18.280$ as well as patients themselves.

NOTE Confidence: 0.860762

00:28:18.280 --> 00:28:20.674 The Love Mark Foundation on TV

NOTE Confidence: 0.860762

 $00{:}28{:}20.674 \dashrightarrow 00{:}28{:}22.629$ and Jamie Lovemark dream Love

NOTE Confidence: 0.860762

 $00:28:22.629 \longrightarrow 00:28:24.596$ Mark is a is a PGA golfer.

NOTE Confidence: 0.860762

 $00:28:24.600 \longrightarrow 00:28:26.754$ They've donated nearly a half \$1,000,000

NOTE Confidence: 0.860762

 $00:28:26.754 \longrightarrow 00:28:29.168$ with every penny going to our patients,

 $00:28:29.170 \longrightarrow 00:28:32.320$ and so we can't thank them enough because it.

NOTE Confidence: 0.860762

 $00:28:32.320 \longrightarrow 00:28:35.140$ It really does help in terms

NOTE Confidence: 0.860762

 $00:28:35.140 \longrightarrow 00:28:37.020$ of of their care.

NOTE Confidence: 0.860762

 $00:28:37.020 \longrightarrow 00:28:39.884$ And a special thank you to our primary

NOTE Confidence: 0.860762

 $00:28:39.884 \longrightarrow 00:28:42.259$ brain tumor surgery clinical team.

NOTE Confidence: 0.860762

 $00:28:42.260 \longrightarrow 00:28:45.364$ So if and when you ever speak to

NOTE Confidence: 0.860762

00:28:45.364 --> 00:28:47.904 someone from my office, Jillian Bongard,

NOTE Confidence: 0.860762

 $00:28:47.904 \longrightarrow 00:28:50.718$ who's all the way to the left,

NOTE Confidence: 0.860762

 $00:28:50.720 \longrightarrow 00:28:53.534$ she is one of our APR ends.

NOTE Confidence: 0.860762

 $00:28:53.540 \longrightarrow 00:28:55.152$ She's an absolute superstar.

NOTE Confidence: 0.860762

 $00{:}28{:}55.152 \dashrightarrow 00{:}28{:}56.766$ Marcy Diggs, another superstar.

NOTE Confidence: 0.860762

00:28:56.766 --> 00:28:57.169 Actually,

NOTE Confidence: 0.860762

00:28:57.169 --> 00:28:59.184 they're all superstars Kelly Mishad,

NOTE Confidence: 0.860762

 $00:28:59.190 \longrightarrow 00:29:01.602$ who is one of our Nurse

NOTE Confidence: 0.860762

00:29:01.602 --> 00:29:02.808 coordinators Marcia Williams,

NOTE Confidence: 0.860762

 $00:29:02.810 \longrightarrow 00:29:04.694$ and then Amorini Pina,

 $00:29:04.694 \longrightarrow 00:29:07.049$ who is our administrative assistant.

NOTE Confidence: 0.860762

 $00:29:07.050 \longrightarrow 00:29:10.291$ We can be reached at anytime and

NOTE Confidence: 0.860762

 $00:29:10.291 \longrightarrow 00:29:12.851$ so any questions just feel free

NOTE Confidence: 0.860762

 $00:29:12.851 \longrightarrow 00:29:16.310$ to give us a call or to email me.

NOTE Confidence: 0.860762

 $00{:}29{:}16.310 \dashrightarrow 00{:}29{:}19.607$ Alright, so that is the surgical overview.

NOTE Confidence: 0.860762

00:29:19.610 --> 00:29:22.543 Next we have Doctor Nick Bond and

NOTE Confidence: 0.860762

 $00:29:22.543 \longrightarrow 00:29:26.199$ who is a new oncologist at Yale.

NOTE Confidence: 0.860762

 $00:29:26.200 \longrightarrow 00:29:28.712$ He has practiced also.

NOTE Confidence: 0.860762

 $00:29:28.712 \longrightarrow 00:29:31.224$ Let me stop sharing.

NOTE Confidence: 0.860762

 $00:29:31.230 \longrightarrow 00:29:35.220$ At Trumbull smilow.

NOTE Confidence: 0.860762

 $00:29:35.220 \longrightarrow 00:29:36.640$ Anne has been a really

NOTE Confidence: 0.860762

 $00:29:36.640 \longrightarrow 00:29:38.060$ good friend of mine and

NOTE Confidence: 0.86479473

 $00:29:38.125 \longrightarrow 00:29:39.860$ Ann is really, really good doctor.

NOTE Confidence: 0.8145384

 $00{:}29{:}41.570 \dashrightarrow 00{:}29{:}46.060$ Well, thanks for those kind words, Jen and.

NOTE Confidence: 0.8145384

 $00:29:46.060 \longrightarrow 00:29:47.344$ Thanks for the opportunity

 $00:29:47.344 \longrightarrow 00:29:48.949$ to participate in this talk.

NOTE Confidence: 0.8145384

 $00:29:48.950 \longrightarrow 00:29:51.176$ It's really been not privilege of mine

NOTE Confidence: 0.8145384

 $00{:}29{:}51.176 \dashrightarrow 00{:}29{:}54.087$ to be part of the Yale brain tumor team.

NOTE Confidence: 0.8145384

 $00:29:54.090 \longrightarrow 00:29:56.810$ For the last two and a half years now and

NOTE Confidence: 0.8145384

00:29:56.881 --> 00:29:59.534 work together with such other fine docs,

NOTE Confidence: 0.8145384

 $00{:}29{:}59.540 \dashrightarrow 00{:}30{:}01.647$ I really feel like we're making a

NOTE Confidence: 0.8145384

 $00:30:01.647 \longrightarrow 00:30:03.718$ difference for folks here in Connecticut,

NOTE Confidence: 0.8145384

 $00:30:03.720 \longrightarrow 00:30:07.808$ so only start sharing my screen here.

NOTE Confidence: 0.8145384

 $00:30:07.810 \longrightarrow 00:30:08.620$ Alright.

NOTE Confidence: 0.86127996

00:30:10.750 --> 00:30:12.820 I'm going to provide an update

NOTE Confidence: 0.86127996

 $00{:}30{:}12.820 \dashrightarrow 00{:}30{:}14.802$ in brain tumor management from

NOTE Confidence: 0.86127996

00:30:14.802 --> 00:30:16.419 the neurooncology perspective,

NOTE Confidence: 0.86127996

 $00:30:16.420 \longrightarrow 00:30:18.445$ and I'll be specifically focusing

NOTE Confidence: 0.86127996

00:30:18.445 --> 00:30:21.000 on glioblastoma, the most common

NOTE Confidence: 0.86127996

 $00:30:21.000 \longrightarrow 00:30:23.900$ malignant brain tumor in adults.

NOTE Confidence: 0.86127996

 $00:30:23.900 \longrightarrow 00:30:25.804$ Do not touch on other brain tumors such

 $00:30:25.804 \longrightarrow 00:30:27.358$ as meningioma in this particular saw.

NOTE Confidence: 0.74802816

00:30:29.520 --> 00:30:31.556 Here's my disclosure. Slide.

NOTE Confidence: 0.74802816

 $00{:}30{:}31.556 \dashrightarrow 00{:}30{:}34.840$ I participate as Aryel investigator for a.

NOTE Confidence: 0.74802816

 $00:30:34.840 \longrightarrow 00:30:36.188$ Nonprofit organization called Global

NOTE Confidence: 0.74802816

 $00{:}30{:}36.188 {\:\dashrightarrow\:} 00{:}30{:}37.536$ Coalition for Adaptive Research.

NOTE Confidence: 0.74802816

 $00:30:37.540 \longrightarrow 00:30:39.906$ Orji car running a large clinical trial,

NOTE Confidence: 0.74802816

 $00:30:39.910 \longrightarrow 00:30:41.190$ which I'll speak on.

NOTE Confidence: 0.74802816

00:30:41.190 --> 00:30:43.630 Also do consulting for Novocure and Biocept,

NOTE Confidence: 0.74802816

 $00{:}30{:}43.630 \dashrightarrow 00{:}30{:}45.430$ and have no stock or financial

NOTE Confidence: 0.74802816

00:30:45.430 --> 00:30:47.680 interest in any of these companies,

NOTE Confidence: 0.74802816

 $00{:}30{:}47.680 \dashrightarrow 00{:}30{:}50.150$ and I produced this presentation.

NOTE Confidence: 0.74802816

00:30:50.150 --> 00:30:51.942 So I'm going to start by just

NOTE Confidence: 0.74802816

 $00:30:51.942 \dashrightarrow 00:30:53.853$ touching base on some basic overview

NOTE Confidence: 0.74802816

 $00:30:53.853 \longrightarrow 00:30:55.663$ information and clear blastoma so

NOTE Confidence: 0.74802816

00:30:55.663 --> 00:30:57.799 I mentioned it's the most common

00:30:57.799 --> 00:30:59.833 malignant primary brain tumor in adults.

NOTE Confidence: 0.74802816

 $00:30:59.840 \longrightarrow 00:31:01.875$ The incidence is around three

NOTE Confidence: 0.74802816

 $00:31:01.875 \longrightarrow 00:31:03.910$ folks per 100,000 per year,

NOTE Confidence: 0.74802816

 $00:31:03.910 \longrightarrow 00:31:06.520$ and so we estimate that there's

NOTE Confidence: 0.74802816

 $00:31:06.520 \longrightarrow 00:31:09.322$ probably 100 to 150 new cases

NOTE Confidence: 0.74802816

 $00:31:09.322 \longrightarrow 00:31:11.258$ per year in Connecticut.

NOTE Confidence: 0.74802816

 $00:31:11.260 \longrightarrow 00:31:11.800$ And.

NOTE Confidence: 0.74802816

 $00:31:11.800 \longrightarrow 00:31:15.580$ So consider brain cancer arising from the

NOTE Confidence: 0.74802816

 $00:31:15.580 \longrightarrow 00:31:17.879$ cancerous transformation of glial cells,

NOTE Confidence: 0.74802816

 $00{:}31{:}17.880 \dashrightarrow 00{:}31{:}20.337$ which are normal cells that exist in

NOTE Confidence: 0.74802816

 $00{:}31{:}20.337 \dashrightarrow 00{:}31{:}23.613$ the brain and help kind of support the

NOTE Confidence: 0.74802816

 $00:31:23.613 \longrightarrow 00:31:25.758$ brain structure and release hormones

NOTE Confidence: 0.74802816

00:31:25.829 --> 00:31:28.009 that maintain neuron integrity,

NOTE Confidence: 0.74802816

 $00{:}31{:}28.010 \dashrightarrow 00{:}31{:}30.120$ and these cells generally don't

NOTE Confidence: 0.74802816

 $00:31:30.120 \longrightarrow 00:31:31.386$ divide in adults,

NOTE Confidence: 0.74802816

 $00:31:31.390 \longrightarrow 00:31:33.940$ but they can develop mutations or

 $00:31:33.940 \longrightarrow 00:31:35.640$ abnormal chromosome numbers that

NOTE Confidence: 0.74802816

 $00{:}31{:}35.707 \dashrightarrow 00{:}31{:}37.767$ cause them to become cancerous

NOTE Confidence: 0.74802816

00:31:37.767 --> 00:31:39.827 and develop a glioblastoma tumor.

NOTE Confidence: 0.74802816

 $00:31:39.830 \longrightarrow 00:31:42.548$ And once the tumor has developed.

NOTE Confidence: 0.74802816

 $00:31:42.550 \longrightarrow 00:31:44.734$ By the time it's causing symptoms

NOTE Confidence: 0.74802816

 $00:31:44.734 \longrightarrow 00:31:47.167$ and discovered it is both nodule

NOTE Confidence: 0.74802816

 $00:31:47.167 \longrightarrow 00:31:48.967$ and also infiltrating cells.

NOTE Confidence: 0.74802816

 $00{:}31{:}48.970 \dashrightarrow 00{:}31{:}51.430$ So by infiltrating I mean tumor

NOTE Confidence: 0.74802816

 $00{:}31{:}51.430 \dashrightarrow 00{:}31{:}53.520$ cells that are spreading into

NOTE Confidence: 0.74802816

 $00:31:53.520 \longrightarrow 00:31:55.776$ the normal tissue of the brain,

NOTE Confidence: 0.74802816

 $00{:}31{:}55.780 \dashrightarrow 00{:}31{:}58.162$ and so the really the problem

NOTE Confidence: 0.74802816

 $00{:}31{:}58.162 \dashrightarrow 00{:}32{:}00.192$ of glioblastoma is that while

NOTE Confidence: 0.74802816

 $00{:}32{:}00.192 \dashrightarrow 00{:}32{:}02.712$ the visible tumor on an MRI can

NOTE Confidence: 0.74802816

00:32:02.712 --> 00:32:05.009 be removed and doctor maternal,

NOTE Confidence: 0.74802816

 $00:32:05.010 \longrightarrow 00:32:07.416$ so they're up some really neat

 $00:32:07.416 \longrightarrow 00:32:09.020$ techniques to achieve that.

NOTE Confidence: 0.74802816

 $00:32:09.020 \longrightarrow 00:32:09.836$ Now, unfortunately,

NOTE Confidence: 0.74802816

 $00:32:09.836 \longrightarrow 00:32:11.876$ there will be residual glioblastoma

NOTE Confidence: 0.74802816

 $00:32:11.876 \longrightarrow 00:32:12.692$ cells that.

NOTE Confidence: 0.74802816

 $00:32:12.700 \longrightarrow 00:32:14.536$ Exist in the brain and could

NOTE Confidence: 0.74802816

00:32:14.536 --> 00:32:16.684 regrow into new tumors or cause

NOTE Confidence: 0.74802816

00:32:16.684 --> 00:32:18.412 more neurological disability by

NOTE Confidence: 0.74802816

 $00:32:18.412 \longrightarrow 00:32:20.140$ spreading throughout the brain.

NOTE Confidence: 0.74802816

 $00{:}32{:}20.140 \dashrightarrow 00{:}32{:}22.500$ So it's my job as a neuro oncologist

NOTE Confidence: 0.74802816

 $00:32:22.500 \longrightarrow 00:32:24.458$ to try to provide chemotherapy

NOTE Confidence: 0.74802816

 $00{:}32{:}24.458 \dashrightarrow 00{:}32{:}27.050$ and other treatments to slow the

NOTE Confidence: 0.74802816

 $00:32:27.050 \longrightarrow 00:32:29.067$ growth of those tumors cells,

NOTE Confidence: 0.74802816

 $00:32:29.070 \longrightarrow 00:32:32.406$ or really ideally completely inactivate them.

NOTE Confidence: 0.74802816

 $00:32:32.410 \longrightarrow 00:32:33.388$ And so again,

NOTE Confidence: 0.74802816

 $00:32:33.388 \longrightarrow 00:32:35.344$ it's a disease which can't be

NOTE Confidence: 0.74802816

 $00:32:35.344 \longrightarrow 00:32:36.480$ cured by surgery,

 $00:32:36.480 \longrightarrow 00:32:38.205$ but the extensive surgery is

NOTE Confidence: 0.74802816

 $00{:}32{:}38.205 \mathrel{--}{>} 00{:}32{:}39.585$ critical with complete removal

NOTE Confidence: 0.74802816

 $00:32:39.585 \longrightarrow 00:32:41.217$ of all the visible tumor.

NOTE Confidence: 0.74802816

00:32:41.220 --> 00:32:44.160 Really providing a much better chance for

NOTE Confidence: 0.74802816

 $00{:}32{:}44.160 \dashrightarrow 00{:}32{:}47.299$ the patient to be a long term survivor.

NOTE Confidence: 0.74802816

00:32:47.300 --> 00:32:49.340 And following removal of the tumor,

NOTE Confidence: 0.74802816

 $00:32:49.340 \longrightarrow 00:32:50.360$ common treatment options,

NOTE Confidence: 0.74802816

 $00:32:50.360 \longrightarrow 00:32:52.060$ or radiation and chemotherapy again,

NOTE Confidence: 0.74802816

 $00:32:52.060 \longrightarrow 00:32:54.442$ I'll be touching on the chemotherapy

NOTE Confidence: 0.74802816

 $00{:}32{:}54.442 \dashrightarrow 00{:}32{:}56.456$ and my colleague Doctor Mcgibbon

NOTE Confidence: 0.74802816

 $00{:}32{:}56.456 \dashrightarrow 00{:}32{:}58.598$ will be touching on the radiation

NOTE Confidence: 0.74802816

00:32:58.598 --> 00:33:00.270 on the next segment.

NOTE Confidence: 0.74802816

 $00:33:00.270 \longrightarrow 00:33:03.714$ So it glioblastoma is typically found by

NOTE Confidence: 0.74802816

 $00:33:03.714 \longrightarrow 00:33:07.477$ causing a first time seizure in an adult.

NOTE Confidence: 0.74802816

 $00:33:07.480 \longrightarrow 00:33:10.369$ So anyone from.

 $00:33:10.370 \longrightarrow 00:33:11.925$ Kind of adolescents on that

NOTE Confidence: 0.74802816

00:33:11.925 --> 00:33:13.480 has a first time seizure.

NOTE Confidence: 0.74802816

 $00{:}33{:}13.480 \dashrightarrow 00{:}33{:}15.955$ A common cause of that would be a brain

NOTE Confidence: 0.74802816

 $00:33:15.955 \longrightarrow 00:33:18.437$ tumor and then specifically glioblastoma.

NOTE Confidence: 0.74802816

 $00:33:18.440 \longrightarrow 00:33:20.432$ That would lead to imaging such

NOTE Confidence: 0.74802816

 $00:33:20.432 \longrightarrow 00:33:23.348$ as a CAT scan or MRI showing a

NOTE Confidence: 0.74802816

 $00:33:23.348 \longrightarrow 00:33:25.233$ mass within the brain tissue.

NOTE Confidence: 0.74802816

 $00:33:25.240 \longrightarrow 00:33:27.030$ An characteristic findings of this,

NOTE Confidence: 0.74802816

 $00{:}33{:}27.030 \dashrightarrow 00{:}33{:}29.010$ including a dark middle area of

NOTE Confidence: 0.74802816

 $00:33:29.010 \longrightarrow 00:33:30.970$ the tumor called the necrosis,

NOTE Confidence: 0.74802816

 $00{:}33{:}30.970 \dashrightarrow 00{:}33{:}32.554$ is consistent with glioblastoma,

NOTE Confidence: 0.74802816

 $00:33:32.554 \longrightarrow 00:33:35.299$ so we could know even preoperative that

NOTE Confidence: 0.74802816

 $00:33:35.299 \longrightarrow 00:33:37.763$ a tumor looks likely to be a glioblastoma,

NOTE Confidence: 0.74802816

 $00:33:37.770 \longrightarrow 00:33:40.546$ but we need the tumor to be removed

NOTE Confidence: 0.74802816

 $00:33:40.546 \longrightarrow 00:33:42.796$ and pathology testing to be done

NOTE Confidence: 0.74802816

 $00:33:42.796 \longrightarrow 00:33:44.641$ to confirm that before proceed

 $00:33:44.641 \longrightarrow 00:33:47.072$ to further treatment and then

NOTE Confidence: 0.74802816

 $00:33:47.072 \longrightarrow 00:33:49.060$ beyond seizures other common.

NOTE Confidence: 0.811282830434783

 $00{:}33{:}49.060 \dashrightarrow 00{:}33{:}50.504$ Presenting symptoms could be.

NOTE Confidence: 0.811282830434783

 $00:33:50.504 \longrightarrow 00:33:53.064$ Visual changes loss of part of the

NOTE Confidence: 0.811282830434783

 $00{:}33{:}53.064 \dashrightarrow 00{:}33{:}55.381$ peripheral vision or visual field and then

NOTE Confidence: 0.811282830434783

 $00:33:55.381 \longrightarrow 00:33:57.790$ also new onset cognitive impairments.

NOTE Confidence: 0.811282830434783

00:33:57.790 --> 00:33:59.848 So a common story would be someone

NOTE Confidence: 0.811282830434783

 $00:33:59.848 \longrightarrow 00:34:01.974$ that seemed to be developing memory

NOTE Confidence: 0.811282830434783

 $00:34:01.974 \longrightarrow 00:34:04.332$ loss or almost dementia like symptoms,

NOTE Confidence: 0.811282830434783

 $00{:}34{:}04.340 \dashrightarrow 00{:}34{:}06.284$ symptoms worsening over weeks to a

NOTE Confidence: 0.811282830434783

 $00:34:06.284 \longrightarrow 00:34:09.080$ few months that can be due to brain

NOTE Confidence: 0.811282830434783

 $00:34:09.080 \longrightarrow 00:34:11.240$ dysfunction from a glioblastoma brain tumor.

NOTE Confidence: 0.81438845

 $00{:}34{:}13.530 \dashrightarrow 00{:}34{:}15.756$ And so in regards to prognosis.

NOTE Confidence: 0.81438845

00:34:15.760 --> 00:34:17.620 I had mentioned the extensive

NOTE Confidence: 0.81438845

00:34:17.620 --> 00:34:19.108 surgical resection is important,

 $00:34:19.110 \longrightarrow 00:34:21.707$ but another critical factor is simply age,

NOTE Confidence: 0.81438845

 $00:34:21.710 \longrightarrow 00:34:24.160$ age of a patient and.

NOTE Confidence: 0.81438845

 $00:34:24.160 \longrightarrow 00:34:26.862$ Studies have indicated that an age of

NOTE Confidence: 0.81438845

 $00:34:26.862 \longrightarrow 00:34:29.950$ 70 is kind of a cut off benchmark.

NOTE Confidence: 0.81438845

 $00:34:29.950 \longrightarrow 00:34:32.698$ So if a person is diagnosed

NOTE Confidence: 0.81438845

00:34:32.698 --> 00:34:34.530 young 69 and younger.

NOTE Confidence: 0.81438845

 $00:34:34.530 \longrightarrow 00:34:36.612$ They may be able to tolerate

NOTE Confidence: 0.81438845

 $00:34:36.612 \longrightarrow 00:34:37.653$ more intensive treatment,

NOTE Confidence: 0.81438845

00:34:37.660 --> 00:34:38.809 more extensive radiation,

NOTE Confidence: 0.81438845

 $00:34:38.809 \longrightarrow 00:34:40.724$ higher doses of chemotherapy compared

NOTE Confidence: 0.81438845

 $00:34:40.724 \longrightarrow 00:34:42.530$ to someone who's 70 and older,

NOTE Confidence: 0.81438845

 $00:34:42.530 \longrightarrow 00:34:44.540$ and I like to think of

NOTE Confidence: 0.81438845

 $00:34:44.540 \longrightarrow 00:34:46.360$ this similar to you know,

NOTE Confidence: 0.81438845

 $00:34:46.360 \longrightarrow 00:34:47.752$ dosing of Tylenol for

NOTE Confidence: 0.81438845

00:34:47.752 --> 00:34:48.796 Pediatrics versus adults.

NOTE Confidence: 0.81438845

 $00{:}34{:}48.800 \dashrightarrow 00{:}34{:}51.432$ So you can't give a child an adult

 $00:34:51.432 \longrightarrow 00:34:53.668$ dosage of Tylenol or mot ring.

NOTE Confidence: 0.81438845

 $00:34:53.670 \longrightarrow 00:34:56.214$ You have to base the treatment on the

NOTE Confidence: 0.81438845

00:34:56.214 --> 00:34:59.235 age of the patient and their body size.

NOTE Confidence: 0.81438845

00:34:59.240 --> 00:35:01.328 So again, looking at a patient,

NOTE Confidence: 0.81438845

 $00:35:01.330 \longrightarrow 00:35:03.390$ I'm going to treat someone

NOTE Confidence: 0.81438845

 $00:35:03.390 \longrightarrow 00:35:05.450$ differently based on their age.

NOTE Confidence: 0.81438845

 $00:35:05.450 \longrightarrow 00:35:07.320$ And then.

NOTE Confidence: 0.81438845

 $00:35:07.320 \longrightarrow 00:35:09.330$ Their disability of a person could

NOTE Confidence: 0.81438845

 $00{:}35{:}09.330 \dashrightarrow 00{:}35{:}11.788$ depend on where the tumor is located,

NOTE Confidence: 0.81438845

 $00:35:11.790 \longrightarrow 00:35:14.562$ so ideally the tumor is grown in a place

NOTE Confidence: 0.81438845

00:35:14.562 --> 00:35:16.950 where Jen can completely respect it,

NOTE Confidence: 0.81438845

 $00:35:16.950 \longrightarrow 00:35:19.372$ but in some cases tumors will arise

NOTE Confidence: 0.81438845

 $00{:}35{:}19.372 \dashrightarrow 00{:}35{:}21.768$ in more central areas of the brain,

NOTE Confidence: 0.81438845

00:35:21.770 --> 00:35:23.158 the thalamus or brain stem,

NOTE Confidence: 0.81438845

 $00:35:23.158 \longrightarrow 00:35:26.579$ and in these areas only a biopsy can be done,

 $00:35:26.580 \longrightarrow 00:35:28.148$ and so neurological disabilities

NOTE Confidence: 0.81438845

 $00:35:28.148 \longrightarrow 00:35:30.108$ unfortunately will persist after the

NOTE Confidence: 0.81438845

 $00:35:30.108 \dashrightarrow 00:35:32.087$ diagnosis and be more difficult to treat.

NOTE Confidence: 0.81438845

 $00:35:32.090 \longrightarrow 00:35:33.830$ And then there are some molecular

NOTE Confidence: 0.81438845

 $00:35:33.830 \longrightarrow 00:35:35.486$ factors which are of critical

NOTE Confidence: 0.81438845

 $00:35:35.486 \longrightarrow 00:35:37.246$ for understanding the prognosis.

NOTE Confidence: 0.81438845

00:35:37.250 --> 00:35:39.135 2 main factors with glioblastoma

NOTE Confidence: 0.81438845

 $00:35:39.135 \longrightarrow 00:35:41.020$ are The MGM T status.

NOTE Confidence: 0.81438845

00:35:41.020 --> 00:35:41.782 And IDH,

NOTE Confidence: 0.81438845

 $00:35:41.782 \longrightarrow 00:35:44.449$ one status MGMT is an enzyme that

NOTE Confidence: 0.81438845

 $00{:}35{:}44.449 \dashrightarrow 00{:}35{:}47.493$ can repair the damage done to tumor

NOTE Confidence: 0.81438845

00:35:47.493 --> 00:35:50.004 cells by Thomas Ola, my chemotherapy.

NOTE Confidence: 0.81438845

 $00:35:50.004 \longrightarrow 00:35:52.748$ And so patients have high amounts of

NOTE Confidence: 0.81438845

 $00:35:52.748 \longrightarrow 00:35:55.367$ MGMT enzyme within their tumor cells.

NOTE Confidence: 0.81438845

 $00:35:55.370 \longrightarrow 00:35:57.010$ They'll be relatively resistant

NOTE Confidence: 0.81438845

00:35:57.010 --> 00:35:58.240 to temodar chemotherapy.

 $00:35:58.240 \longrightarrow 00:36:00.290$ It won't work as well,

NOTE Confidence: 0.81438845

 $00{:}36{:}00.290 \dashrightarrow 00{:}36{:}03.572$ and those patients generally have poorer

NOTE Confidence: 0.81438845

 $00:36:03.572 \longrightarrow 00:36:06.620$ prognosis for long term survival.

NOTE Confidence: 0.81438845

00:36:06.620 --> 00:36:09.049 And so his doctor Will Turner had

NOTE Confidence: 0.81438845

 $00:36:09.049 \longrightarrow 00:36:11.595$ mentioned we do whole exome sequencing

NOTE Confidence: 0.81438845

00:36:11.595 --> 00:36:13.970 or essentially DNA sequencing of

NOTE Confidence: 0.81438845

 $00:36:13.970 \longrightarrow 00:36:16.629$ tumor cells after they are removed.

NOTE Confidence: 0.81438845

 $00:36:16.630 \longrightarrow 00:36:18.750$ To understand what mutations exist

NOTE Confidence: 0.81438845

 $00{:}36{:}18.750 \dashrightarrow 00{:}36{:}21.762$ in the tumor beyond what their MGM

NOTE Confidence: 0.81438845

 $00{:}36{:}21.762 \dashrightarrow 00{:}36{:}24.216$ T molecular statuses and their IDH

NOTE Confidence: 0.81438845

00:36:24.216 --> 00:36:27.124 one mutation status and we look for

NOTE Confidence: 0.81438845

 $00{:}36{:}27.124 \dashrightarrow 00{:}36{:}29.134$ mutations which could be targeted

NOTE Confidence: 0.81438845

 $00:36:29.140 \longrightarrow 00:36:30.604$ by new generation chemotherapy.

NOTE Confidence: 0.81438845

 $00:36:30.604 \longrightarrow 00:36:33.730$ So in a small percentage of glioblastomas,

NOTE Confidence: 0.81438845

 $00:36:33.730 \longrightarrow 00:36:35.370$ unfortunately less than 5%.

 $00:36:35.370 \longrightarrow 00:36:38.242$ At this point there do exist mutation

NOTE Confidence: 0.81438845

 $00{:}36{:}38.242 \dashrightarrow 00{:}36{:}40.958$ and such as B. Raff and NTR K.

NOTE Confidence: 0.81438845

00:36:40.958 --> 00:36:41.300 Fusion,

NOTE Confidence: 0.81438845

 $00:36:41.300 \longrightarrow 00:36:43.020$ for which new generation chemotherapy

NOTE Confidence: 0.81438845

 $00:36:43.020 \longrightarrow 00:36:45.097$ exists can cross the blood brain

NOTE Confidence: 0.81438845

 $00:36:45.097 \longrightarrow 00:36:46.903$ barrier and be effective to treat

NOTE Confidence: 0.81438845

 $00:36:46.903 \longrightarrow 00:36:48.830$ those tumors and delay progression,

NOTE Confidence: 0.81438845

 $00:36:48.830 \longrightarrow 00:36:49.862$ sometimes for years.

NOTE Confidence: 0.81438845

 $00{:}36{:}49.862 \dashrightarrow 00{:}36{:}52.270$ So we want to test every patient

NOTE Confidence: 0.81438845

00:36:52.337 --> 00:36:54.359 for their genomics of their two

NOTE Confidence: 0.81438845

 $00{:}36{:}54.359 \dashrightarrow 00{:}36{:}56.440$ men to understand if they would

NOTE Confidence: 0.81438845

 $00:36:56.440 \longrightarrow 00:36:58.757$ have a treatment option for one of

NOTE Confidence: 0.81438845

 $00{:}36{:}58.757 \dashrightarrow 00{:}37{:}01.166$ these new treatments and further

NOTE Confidence: 0.81438845

00:37:01.166 --> 00:37:03.761 just understanding what is the

NOTE Confidence: 0.81438845

 $00:37:03.761 \longrightarrow 00:37:05.450$ prognosis of this tumor.

NOTE Confidence: 0.81438845

 $00:37:05.450 \longrightarrow 00:37:08.257$ And so it now the standard therapies,

00:37:08.260 --> 00:37:09.860 which I haven't unfortunately,

NOTE Confidence: 0.81438845

 $00:37:09.860 \longrightarrow 00:37:11.060$ are fairly limited.

NOTE Confidence: 0.81438845

00:37:11.060 --> 00:37:13.436 I feel jealous of my medical

NOTE Confidence: 0.81438845

 $00:37:13.436 \longrightarrow 00:37:15.020$ oncology colleagues who may

NOTE Confidence: 0.81438845

 $00:37:15.097 \longrightarrow 00:37:17.077$ have a number of treatments,

NOTE Confidence: 0.81438845

 $00:37:17.080 \longrightarrow 00:37:20.006$ like for example breast cancer has more

NOTE Confidence: 0.81438845

00:37:20.006 --> 00:37:22.688 than 30 approved drugs to treat it,

NOTE Confidence: 0.81438845

 $00:37:22.690 \longrightarrow 00:37:23.932$ whereas for glioblastomas,

NOTE Confidence: 0.81438845

 $00{:}37{:}23.932 \dashrightarrow 00{:}37{:}26.830$ unfortunately we only have a few drugs

NOTE Confidence: 0.81438845

 $00:37:26.897 \longrightarrow 00:37:29.508$ FDA approved for treatment in one device,

NOTE Confidence: 0.8347169

 $00:37:29.510 \longrightarrow 00:37:32.534$ and so the initial standard of care for

NOTE Confidence: 0.8347169

00:37:32.534 --> 00:37:34.720 glioblastoma was established in 2005,

NOTE Confidence: 0.8347169

 $00:37:34.720 \longrightarrow 00:37:36.016$ which combines tennis

NOTE Confidence: 0.8347169

00:37:36.016 --> 00:37:37.744 olamide or TMZ chemotherapy.

NOTE Confidence: 0.8347169

 $00:37:37.750 \longrightarrow 00:37:39.856$ Along with radiation treatment for the

 $00:37:39.856 \longrightarrow 00:37:42.032$ initial phase of treatment and then

NOTE Confidence: 0.8347169

00:37:42.032 --> 00:37:44.180 monthly maintenance rounds of Tim's Olamide,

NOTE Confidence: 0.8347169

 $00:37:44.180 \longrightarrow 00:37:46.651$ and this did provide a few months

NOTE Confidence: 0.8347169

 $00:37:46.651 \longrightarrow 00:37:48.561$ longer survival on average for

NOTE Confidence: 0.8347169

 $00:37:48.561 \longrightarrow 00:37:50.883$ patients with a subgroup of patients

NOTE Confidence: 0.8347169

 $00:37:50.883 \longrightarrow 00:37:53.733$ with the low energy and she enzyme

NOTE Confidence: 0.8347169

00:37:53.733 --> 00:37:55.333 level surviving for longer.

NOTE Confidence: 0.8347169

 $00:37:55.340 \longrightarrow 00:37:56.156$ Then in 2009.

NOTE Confidence: 0.8347169

 $00{:}37{:}56.156 \dashrightarrow 00{:}37{:}59.440$ But this is a map or a vast and was approved

NOTE Confidence: 0.8347169

 $00:37:59.440 \longrightarrow 00:38:02.530$ by the FDA for use in recurrent GBM.

NOTE Confidence: 0.8347169

 $00{:}38{:}02.530 \dashrightarrow 00{:}38{:}05.023$ This is a drug which will bind to a

NOTE Confidence: 0.8347169

 $00:38:05.023 \longrightarrow 00:38:07.422$ hormone called veg F and slow down

NOTE Confidence: 0.8347169

 $00:38:07.422 \longrightarrow 00:38:09.203$ blood vessel growth around tumors

NOTE Confidence: 0.8347169

 $00{:}38{:}09.203 \dashrightarrow 00{:}38{:}11.291$ and basically starve tumors of oxygen

NOTE Confidence: 0.8347169

00:38:11.291 --> 00:38:13.524 and so by treating a patient with.

NOTE Confidence: 0.8347169

 $00:38:13.524 \longrightarrow 00:38:15.965$ This is a map you can slow the

 $00{:}38{:}15.965 \dashrightarrow 00{:}38{:}18.037$ growth of the tumor and in some

NOTE Confidence: 0.8347169

 $00:38:18.037 \longrightarrow 00:38:19.903$ cases completely stabilize it with

NOTE Confidence: 0.8347169

00:38:19.903 --> 00:38:22.804 an effect being an average of a few

NOTE Confidence: 0.8347169

 $00:38:22.804 \longrightarrow 00:38:24.439$ months of further survival time.

NOTE Confidence: 0.8347169

 $00:38:24.440 \longrightarrow 00:38:26.260$ Some patients could go even.

NOTE Confidence: 0.8347169

 $00{:}38{:}26.260 \dashrightarrow 00{:}38{:}28.570$ For many months, if their tumors acceptable,

NOTE Confidence: 0.8347169

 $00:38:28.570 \longrightarrow 00:38:30.220$ but generally speaking it's a.

NOTE Confidence: 0.8347169

 $00:38:30.220 \longrightarrow 00:38:32.200$ It's another three to four months

NOTE Confidence: 0.8347169

 $00:38:32.200 \longrightarrow 00:38:33.520$ of longer survival time.

NOTE Confidence: 0.8347169

 $00:38:33.520 \longrightarrow 00:38:35.500$ A person could get with that.

NOTE Confidence: 0.8347169

 $00:38:35.500 \longrightarrow 00:38:36.564$ This is a map.

NOTE Confidence: 0.8347169

 $00:38:36.564 \longrightarrow 00:38:38.702$ And then in 2018 or the Optune

NOTE Confidence: 0.8347169

00:38:38.702 --> 00:38:40.118 device was approved.

NOTE Confidence: 0.8347169

 $00:38:40.120 \longrightarrow 00:38:41.902$ So for some patients that are

NOTE Confidence: 0.8347169

 $00:38:41.902 \longrightarrow 00:38:44.080$ able to use the Optune device,

 $00:38:44.080 \longrightarrow 00:38:45.754$ it's a device of four arrays

NOTE Confidence: 0.8347169

 $00{:}38{:}45.754 \dashrightarrow 00{:}38{:}47.772$ which are placed on the scalp

NOTE Confidence: 0.8347169

 $00:38:47.772 \longrightarrow 00:38:49.029$ creating electrical field,

NOTE Confidence: 0.8347169

 $00:38:49.030 \longrightarrow 00:38:50.680$ which interferes with the mechanical

NOTE Confidence: 0.8347169

 $00:38:50.680 \longrightarrow 00:38:52.000$ process of cell division.

NOTE Confidence: 0.8347169

 $00:38:52.000 \longrightarrow 00:38:54.154$ So as tumor cells attempt to

NOTE Confidence: 0.8347169

 $00:38:54.154 \longrightarrow 00:38:56.818$ divide from 1 cell into two cells.

NOTE Confidence: 0.8347169

00:38:56.820 --> 00:38:58.735 Applying electrical fields can block

NOTE Confidence: 0.8347169

 $00{:}38{:}58.735 \dashrightarrow 00{:}39{:}01.061$ that process from happening and cause

NOTE Confidence: 0.8347169

 $00:39:01.061 \longrightarrow 00:39:02.831$ the cell to ultimately self-destruct

NOTE Confidence: 0.8347169

 $00{:}39{:}02.831 \dashrightarrow 00{:}39{:}05.270$ and not complete the division process.

NOTE Confidence: 0.8347169

 $00:39:05.270 \longrightarrow 00:39:07.664$ So Optune is now used for

NOTE Confidence: 0.8347169

 $00:39:07.664 \longrightarrow 00:39:08.861$ patients following radiation

NOTE Confidence: 0.8347169

 $00:39:08.861 \dashrightarrow 00:39:10.637$ treatment along with Tim's Ola.

NOTE Confidence: 0.8347169

00:39:10.640 --> 00:39:12.800 My chemotherapy with that M as

NOTE Confidence: 0.8347169

 $00:39:12.800 \longrightarrow 00:39:15.429$ Olamide damaging the DNA and then the

00:39:15.429 --> 00:39:17.294 option device slowing or preventing

NOTE Confidence: 0.8347169

 $00:39{:}17.294 \dashrightarrow 00{:}39{:}19.738$ the cell division process and with

NOTE Confidence: 0.8347169

00:39:19.738 --> 00:39:21.773 that current standard of care,

NOTE Confidence: 0.8347169

 $00:39:21.780 \longrightarrow 00:39:24.204$ on average we're looking for about

NOTE Confidence: 0.8347169

 $00:39:24.204 \longrightarrow 00:39:26.761$ a two years survival time for

NOTE Confidence: 0.8347169

 $00:39:26.761 \longrightarrow 00:39:28.477$ a newly diagnosed patient.

NOTE Confidence: 0.8347169

 $00:39:28.480 \longrightarrow 00:39:30.130$ And for patients over 870,

NOTE Confidence: 0.8347169

 $00{:}39{:}30.130 \dashrightarrow 00{:}39{:}32.202$ they may not be able to tolerate

NOTE Confidence: 0.8347169

 $00:39:32.202 \longrightarrow 00:39:34.593$ Timmons Olamide or or they may have

NOTE Confidence: 0.8347169

 $00:39:34.593 \longrightarrow 00:39:36.398$ side effects from these chemotherapies,

NOTE Confidence: 0.8347169

 $00{:}39{:}36.400 \dashrightarrow 00{:}39{:}38.596$ so their survival on average may be

NOTE Confidence: 0.8347169

00:39:38.596 --> 00:39:41.190 about one year one you know 1 to

NOTE Confidence: 0.8347169

 $00:39:41.190 \longrightarrow 00:39:43.184 \ 1 \ 1/2$ years and then for patients

NOTE Confidence: 0.8347169

 $00:39:43.184 \dashrightarrow 00:39:45.606$ with The MGM T methyl lated status

NOTE Confidence: 0.8347169

00:39:45.606 --> 00:39:48.280 or low levels of The MGM T enzyme.

 $00:39:48.280 \longrightarrow 00:39:50.146$ I'm looking for an average at

NOTE Confidence: 0.8347169

 $00{:}39{:}50.146 \dashrightarrow 00{:}39{:}51.806$ least three years survival from

NOTE Confidence: 0.8347169

 $00:39:51.806 \longrightarrow 00:39:53.230$ diagnosis for that patient,

NOTE Confidence: 0.8347169

 $00:39:53.230 \longrightarrow 00:39:55.540$ so we want we want more drugs,

NOTE Confidence: 0.8347169

 $00:39:55.540 \longrightarrow 00:39:57.190$ and we want better options.

NOTE Confidence: 0.8347169

 $00:39:57.190 \longrightarrow 00:39:59.350$ And we want non toxic drugs.

NOTE Confidence: 0.8347169

 $00:39:59.350 \longrightarrow 00:40:01.216$ So people can maintain their quality

NOTE Confidence: 0.8347169

00:40:01.216 --> 00:40:03.685 of life while also getting the Disease

NOTE Confidence: 0.8347169

 $00{:}40{:}03.685 \dashrightarrow 00{:}40{:}05.630$ Control and not having progression.

NOTE Confidence: 0.8347169

 $00{:}40{:}05.630 \dashrightarrow 00{:}40{:}08.406$ So this is where clinical trials come in.

NOTE Confidence: 0.8347169

 $00{:}40{:}08.410 \dashrightarrow 00{:}40{:}10.734$ We have the opportunity to participate in

NOTE Confidence: 0.8347169

00:40:10.734 --> 00:40:13.608 a number of clinical trials here at Yale,

NOTE Confidence: 0.8347169

 $00:40:13.610 \longrightarrow 00:40:16.074$ and I'm going to touch on a few

NOTE Confidence: 0.8347169

 $00:40:16.074 \longrightarrow 00:40:18.119$ which I am excited about,

NOTE Confidence: 0.8347169

 $00:40:18.120 \longrightarrow 00:40:20.202$ the first being the GBM agile

NOTE Confidence: 0.8347169

 $00:40:20.202 \longrightarrow 00:40:21.243$ clinical trial GBM.

00:40:21.250 --> 00:40:23.698 Agile is not only a national

NOTE Confidence: 0.8347169

 $00:40:23.698 \longrightarrow 00:40:25.330$ but an international effort.

NOTE Confidence: 0.8347169

 $00:40:25.330 \longrightarrow 00:40:27.115$ To treat newly diagnosed and

NOTE Confidence: 0.8347169

00:40:27.115 --> 00:40:28.900 recurrent GBM and the way

NOTE Confidence: 0.8002533

 $00:40:28.974 \longrightarrow 00:40:31.291$ the study is designed as that is

NOTE Confidence: 0.8002533

 $00:40:31.291 \longrightarrow 00:40:33.861$ a master protocol that can open up

NOTE Confidence: 0.8002533

 $00:40:33.861 \longrightarrow 00:40:35.369$ new experience experimental arms

NOTE Confidence: 0.8002533

00:40:35.369 --> 00:40:37.570 for new drugs and new treatments.

NOTE Confidence: 0.8002533

00:40:37.570 --> 00:40:39.370 So currently for clinical trials,

NOTE Confidence: 0.8002533

 $00:40:39.370 \longrightarrow 00:40:41.841$ one drug would have its own clinical

NOTE Confidence: 0.8002533

00:40:41.841 --> 00:40:44.742 trial and need to recruit half of the

NOTE Confidence: 0.8002533

 $00:40:44.742 \longrightarrow 00:40:46.930$ patients for the standard of care.

NOTE Confidence: 0.8002533

 $00:40:46.930 \longrightarrow 00:40:48.730$ Half of the patients for

NOTE Confidence: 0.8002533

 $00{:}40{:}48.730 \dashrightarrow 00{:}40{:}49.810$ the experimental treatment.

NOTE Confidence: 0.8002533

 $00:40:49.810 \longrightarrow 00:40:51.610$ However, in GBM agile net,

 $00:40:51.610 \longrightarrow 00:40:54.144$ there may be many arms of experimental

NOTE Confidence: 0.8002533

 $00:40:54.144 \longrightarrow 00:40:56.029$ therapies all referencing one standard.

NOTE Confidence: 0.8002533

 $00:40:56.030 \longrightarrow 00:40:57.900$ Common standard of care therapy.

NOTE Confidence: 0.8002533

00:40:57.900 --> 00:41:00.884 And as I showed on the current slide,

NOTE Confidence: 0.8002533

 $00:41:00.890 \longrightarrow 00:41:02.658$ unfortunately our standard Care

NOTE Confidence: 0.8002533

 $00:41:02.658 \longrightarrow 00:41:05.310$ isn't really not acceptable to me

NOTE Confidence: 0.8002533

00:41:05.378 --> 00:41:07.562 and I think that the GBM Agile

NOTE Confidence: 0.8002533

00:41:07.562 --> 00:41:09.986 offers a chance to move new drugs

NOTE Confidence: 0.8002533

 $00{:}41{:}09.986 \dashrightarrow 00{:}41{:}12.104$ forward or understand if new drugs

NOTE Confidence: 0.8002533

 $00:41:12.110 \longrightarrow 00:41:13.850$ are effective with exposing less

NOTE Confidence: 0.8002533

 $00:41:13.850 \longrightarrow 00:41:16.469$ people to the place bo or just the

NOTE Confidence: 0.8002533

 $00:41:16.469 \longrightarrow 00:41:18.097$ common standard oral treatment.

NOTE Confidence: 0.8002533

 $00:41:18.100 \longrightarrow 00:41:20.188$ So currently we have the study

NOTE Confidence: 0.8002533

 $00{:}41{:}20.188 \operatorname{--}{>} 00{:}41{:}22.064$ opening you're looking at drug

NOTE Confidence: 0.8002533

 $00:41:22.064 \longrightarrow 00:41:24.174$ called Regehr Alphanim which inhibits

NOTE Confidence: 0.8002533

 $00:41:24.174 \longrightarrow 00:41:26.240$ multiple enzymes within a cell.

 $00:41:26.240 \longrightarrow 00:41:28.328$ Responsible for tumor cell growth and

NOTE Confidence: 0.8002533

00:41:28.328 --> 00:41:30.171 regular alphanim is being compared

NOTE Confidence: 0.8002533

00:41:30.171 --> 00:41:32.106 to Tim's Olamide and maintenance.

NOTE Confidence: 0.8002533

 $00:41:32.110 \longrightarrow 00:41:34.215$ Newly diagnosed patients and also

NOTE Confidence: 0.8002533

 $00{:}41{:}34.215 \dashrightarrow 00{:}41{:}36.707$ for recurrent GBM treatment and then

NOTE Confidence: 0.8002533

00:41:36.707 --> 00:41:38.645 two other drugs will be entering

NOTE Confidence: 0.8002533

00:41:38.645 --> 00:41:40.716 into the GBM agile study shortly

NOTE Confidence: 0.8002533

 $00:41:40.716 \longrightarrow 00:41:43.117$ within the next few weeks here at

NOTE Confidence: 0.8002533

 $00:41:43.120 \longrightarrow 00:41:45.689$ Yale and those drugs are fellow 83,

NOTE Confidence: 0.8002533

00:41:45.690 --> 00:41:47.886 a drug similar to Tim's Olamide

NOTE Confidence: 0.8002533

00:41:47.886 --> 00:41:48.984 and Paxil listed,

NOTE Confidence: 0.8002533

 $00{:}41{:}48.990 \dashrightarrow 00{:}41{:}50.825$ which is another molecular inhibitor

NOTE Confidence: 0.8002533

 $00{:}41{:}50.825 \dashrightarrow 00{:}41{:}53.400$ blocking a molecule called P I3 trainees,

NOTE Confidence: 0.8002533

 $00:41:53.400 \longrightarrow 00:41:57.928$ so we're excited to offer this to patients.

NOTE Confidence: 0.8002533

00:41:57.930 --> 00:41:59.553 We haven't screening,

00:41:59.553 --> 00:42:01.717 only diagnosed patients offer

NOTE Confidence: 0.8002533

00:42:01.717 --> 00:42:03.340 participation in this.

NOTE Confidence: 0.8002533

 $00:42:03.340 \longrightarrow 00:42:05.362$ And then another line of therapy

NOTE Confidence: 0.8002533

 $00{:}42{:}05.362 \rightarrow 00{:}42{:}07.674$ that we are actively looking into

NOTE Confidence: 0.8002533

 $00:42:07.674 \longrightarrow 00:42:09.458$ his immunotherapy for glioblastoma

NOTE Confidence: 0.8002533

 $00:42:09.458 \longrightarrow 00:42:12.257$ treatment and Yale has participated in

NOTE Confidence: 0.8002533

 $00:42:12.257 \longrightarrow 00:42:14.627$ the initial studies of immunotherapy

NOTE Confidence: 0.8002533

 $00:42:14.627 \longrightarrow 00:42:15.575$ for treatment,

NOTE Confidence: 0.8002533

 $00{:}42{:}15.580 \dashrightarrow 00{:}42{:}17.690$ the check mate studies comparing Opdivo,

NOTE Confidence: 0.8002533

 $00:42:17.690 \longrightarrow 00:42:20.637$ also known as new volume AB checkpoint

NOTE Confidence: 0.8002533

 $00:42:20.637 \longrightarrow 00:42:23.170$ inhibitor drug versus standard of care,

NOTE Confidence: 0.8002533

00:42:23.170 --> 00:42:25.230 chemotherapy's an unfortunately in

NOTE Confidence: 0.8002533

 $00:42:25.230 \longrightarrow 00:42:28.320$ these studies in the volume app

NOTE Confidence: 0.8002533

 $00:42:28.404 \longrightarrow 00:42:29.808$ was not proven to.

NOTE Confidence: 0.8002533

 $00:42:29.810 \longrightarrow 00:42:31.695$ Improve improve survival for patients

NOTE Confidence: 0.8002533

 $00{:}42{:}31.695 \dashrightarrow 00{:}42{:}34.634$ or lead to you no longer progression

00:42:34.634 --> 00:42:37.568 time until progression or or maintain.

NOTE Confidence: 0.8002533

 $00:42:37.570 \longrightarrow 00:42:40.876$ Maintain health for longer and so.

NOTE Confidence: 0.8002533

00:42:40.880 --> 00:42:41.181 Really,

NOTE Confidence: 0.8002533

 $00:42:41.181 \longrightarrow 00:42:43.288$ the drug it seems to be highly

NOTE Confidence: 0.8002533

 $00:42:43.288 \longrightarrow 00:42:44.952$ effective in some cancer types

NOTE Confidence: 0.8002533

00:42:44.952 --> 00:42:46.956 such as Melanoma and lung cancer,

NOTE Confidence: 0.8002533

 $00:42:46.960 \longrightarrow 00:42:48.886$ but in affective in glioblastoma an

NOTE Confidence: 0.8002533

 $00:42:48.886 \longrightarrow 00:42:50.887$ the study was designed really before

NOTE Confidence: 0.8002533

 $00:42:50.887 \longrightarrow 00:42:52.849$ there was a basic science understanding

NOTE Confidence: 0.8002533

 $00:42:52.849 \longrightarrow 00:42:55.277$ of of the immune system of the brain.

NOTE Confidence: 0.8002533

 $00{:}42{:}55.280 \rightarrow 00{:}42{:}57.149$ It was just hoped that this this

NOTE Confidence: 0.8002533

 $00:42:57.149 \longrightarrow 00:42:59.440$ would be a treatment for patients,

NOTE Confidence: 0.8002533

 $00:42:59.440 \longrightarrow 00:43:01.576$ but we now know that there are some

NOTE Confidence: 0.8002533

00:43:01.576 --> 00:43:03.431 factors in cells within the brain

NOTE Confidence: 0.8002533

 $00:43:03.431 \longrightarrow 00:43:05.315$ tumor that can block the effect

 $00:43:05.375 \longrightarrow 00:43:06.839$ of these particular immunotherapy

NOTE Confidence: 0.8002533

 $00:43:06.839 \longrightarrow 00:43:09.497$ drugs when they used on their own.

NOTE Confidence: 0.8002533

 $00{:}43{:}09.497 \dashrightarrow 00{:}43{:}12.696$ And so new drugs are being developed

NOTE Confidence: 0.8002533

 $00:43:12.696 \longrightarrow 00:43:16.080$ which I'll touch on in the next slide.

NOTE Confidence: 0.8002533

 $00:43:16.080 \longrightarrow 00:43:18.424$ But it also appears that now we now

NOTE Confidence: 0.8002533

00:43:18.424 --> 00:43:19.944 believe that combining immunotherapy

NOTE Confidence: 0.8002533

 $00:43:19.944 \longrightarrow 00:43:22.548$ with surgery or radiation for recurrent

NOTE Confidence: 0.8002533

 $00:43:22.548 \longrightarrow 00:43:25.188$ GBM may improve their effectiveness.

NOTE Confidence: 0.8002533

00:43:25.190 --> 00:43:27.075 Small study was published utilizing

NOTE Confidence: 0.8002533

00:43:27.075 --> 00:43:29.462 she Trudeau with surgery or with

NOTE Confidence: 0.8002533

 $00{:}43{:}29.462 --> 00{:}43{:}30.340 \ {\rm repeat\ radiation},$

NOTE Confidence: 0.8002533

 $00:43:30.340 \longrightarrow 00:43:32.512$ a second on radiation and patients

NOTE Confidence: 0.8002533

 $00:43:32.512 \longrightarrow 00:43:34.885$ appear to have longer survival times

NOTE Confidence: 0.8002533

 $00:43:34.885 \longrightarrow 00:43:37.453$ and better outcome with that strategy.

NOTE Confidence: 0.8805834

 $00:43:40.170 \longrightarrow 00:43:42.600$ So with our new clinical trial.

NOTE Confidence: 0.8805834

00:43:42.600 --> 00:43:44.400 It's designed to block TIGIT,

 $00:43:44.400 \longrightarrow 00:43:47.039$ which is a new molecule involved in

NOTE Confidence: 0.8805834

 $00{:}43{:}47.039 \to 00{:}43{:}49.078$ immune system function in the brain.

NOTE Confidence: 0.8805834

 $00:43:49.080 \longrightarrow 00:43:50.820$ The molecule is actually discovered

NOTE Confidence: 0.8805834

 $00:43:50.820 \longrightarrow 00:43:53.343$ in the course of research for multiple

NOTE Confidence: 0.8805834

 $00:43:53.343 \longrightarrow 00:43:55.143$ sclerosis through a research effort

NOTE Confidence: 0.8805834

00:43:55.143 --> 00:43:57.720 headed up here by David Hafler that

NOTE Confidence: 0.8805834

00:43:57.720 --> 00:43:59.880 you're of the Yellow Neurology Department,

NOTE Confidence: 0.8805834

 $00:43:59.880 \longrightarrow 00:44:02.351$ and it turns out in patients with

NOTE Confidence: 0.8805834

 $00:44:02.351 \longrightarrow 00:44:04.174$ multiple sclerosis they have low

NOTE Confidence: 0.8805834

 $00{:}44{:}04.174 \dashrightarrow 00{:}44{:}06.256$ levels of digit and an overactive

NOTE Confidence: 0.8805834

00:44:06.256 --> 00:44:08.116 immune system in patients with

NOTE Confidence: 0.8805834

 $00{:}44{:}08.116 \dashrightarrow 00{:}44{:}09.946$ glioblastoma have high levels of

NOTE Confidence: 0.8805834

 $00{:}44{:}09.946 \dashrightarrow 00{:}44{:}12.060$ digit and a suppressed immune system.

NOTE Confidence: 0.8805834

 $00:44:12.060 \longrightarrow 00:44:14.587$ So the hope is that by blocking

NOTE Confidence: 0.8805834

00:44:14.587 --> 00:44:16.867 TIGIT we can activate the immune

00:44:16.867 --> 00:44:20.084 system in the brain and now will have

NOTE Confidence: 0.8805834

 $00{:}44{:}20.084 \dashrightarrow 00{:}44{:}22.089$ effectiveness to treat GBM tumors.

NOTE Confidence: 0.8805834

 $00:44:22.090 \longrightarrow 00:44:23.992$ So the study has been designed

NOTE Confidence: 0.8805834

 $00:44:23.992 \longrightarrow 00:44:26.545$ to use an anti TIGIT antibody or

NOTE Confidence: 0.8805834

 $00:44:26.545 \longrightarrow 00:44:28.570$ a molecule that block TIGIT.

NOTE Confidence: 0.8805834

 $00:44:28.570 \longrightarrow 00:44:30.570$ Combine that with a standard

NOTE Confidence: 0.8805834

 $00{:}44{:}30.570 \dashrightarrow 00{:}44{:}32.570$ checkpoint inhibitor called a B122

NOTE Confidence: 0.8805834

 $00:44:32.636 \longrightarrow 00:44:34.612$ and our hope is that this will be

NOTE Confidence: 0.8805834

 $00:44:34.612 \longrightarrow 00:44:36.853$ a new effective treatment and a

NOTE Confidence: 0.8805834

00:44:36.853 --> 00:44:39.367 breakthrough for immuno therapy for GBM.

NOTE Confidence: 0.81072026

00:44:42.960 --> 00:44:44.612 And then of course,

NOTE Confidence: 0.81072026

 $00:44:44.612 \longrightarrow 00:44:47.090$ a key factor in glioblastoma management

NOTE Confidence: 0.81072026

 $00:44:47.166 \longrightarrow 00:44:49.896$ is adjunctive care and supportive care.

NOTE Confidence: 0.81072026

 $00{:}44{:}49.900 \dashrightarrow 00{:}44{:}51.205$ Understanding how corticosteroids,

NOTE Confidence: 0.81072026

 $00:44:51.205 \longrightarrow 00:44:54.122$ such as dexamethasone, can impact a patient.

NOTE Confidence: 0.81072026

00:44:54.122 --> 00:44:55.734 Steroids can be helpful

 $00:44:55.734 \longrightarrow 00:44:57.719$ to reduce brain swelling,

NOTE Confidence: 0.81072026

 $00:44:57.720 \longrightarrow 00:45:00.667$ but they can have harmful side effects

NOTE Confidence: 0.81072026

 $00:45:00.667 \longrightarrow 00:45:03.359$ such as weakening the immune system,

NOTE Confidence: 0.81072026

00:45:03.360 --> 00:45:05.958 causing weight gain, causing fragile skin,

NOTE Confidence: 0.81072026

 $00:45:05.960 \longrightarrow 00:45:07.696$ and cause immunosupression so,

NOTE Confidence: 0.81072026

00:45:07.696 --> 00:45:10.300 close management of dexamethasone is key,

NOTE Confidence: 0.81072026

 $00:45:10.300 \longrightarrow 00:45:11.485$ it's something I.

NOTE Confidence: 0.81072026

 $00{:}45{:}11.485 \dashrightarrow 00{:}45{:}13.855$ Think about every day for most

NOTE Confidence: 0.81072026

 $00{:}45{:}13.855 \dashrightarrow 00{:}45{:}16.197$ of the patients that I see.

NOTE Confidence: 0.81072026

 $00:45:16.200 \longrightarrow 00:45:18.629$ Are they on text about the zone?

NOTE Confidence: 0.81072026

 $00:45:18.630 \longrightarrow 00:45:19.671$ What's their dose?

NOTE Confidence: 0.81072026

 $00:45:19.671 \longrightarrow 00:45:21.059$ Can it be reduced?

NOTE Confidence: 0.81072026

 $00{:}45{:}21.060 \dashrightarrow 00{:}45{:}22.785$ Isn't necessary and just understanding

NOTE Confidence: 0.81072026

 $00:45:22.785 \longrightarrow 00:45:24.901$ how to optimize for an individual

NOTE Confidence: 0.81072026

00:45:24.901 --> 00:45:26.566 patient what their best line

 $00:45:26.566 \longrightarrow 00:45:28.662$ of treatment is and then anti

NOTE Confidence: 0.81072026

 $00:45:28.662 \longrightarrow 00:45:30.062$ convulsant medication also may

NOTE Confidence: 0.81072026

00:45:30.062 --> 00:45:31.857 be necessary for some patients,

NOTE Confidence: 0.81072026

00:45:31.857 --> 00:45:33.405 particularly anyone who has

NOTE Confidence: 0.81072026

 $00{:}45{:}33.405 \dashrightarrow 00{:}45{:}36.227$ suffered a seizure at the onset of

NOTE Confidence: 0.81072026

 $00:45:36.227 \longrightarrow 00:45:38.282$ glioblastoma or anyone with seizures

NOTE Confidence: 0.81072026

 $00:45:38.282 \longrightarrow 00:45:40.395$ or suspected seizures at any points

NOTE Confidence: 0.81072026

 $00:45:40.395 \longrightarrow 00:45:42.285$ need to be on an anti seizure.

NOTE Confidence: 0.81072026

00:45:42.290 --> 00:45:43.738 Medication and understanding the

NOTE Confidence: 0.81072026

 $00:45:43.738 \longrightarrow 00:45:45.548$ side effects of these medications

NOTE Confidence: 0.81072026

 $00{:}45{:}45.548 \dashrightarrow 00{:}45{:}47.512$ really can be critical to optimizing

NOTE Confidence: 0.81072026

00:45:47.512 --> 00:45:48.748 someone's quality of life,

NOTE Confidence: 0.81072026

00:45:48.750 --> 00:45:50.556 and if someone is having side

NOTE Confidence: 0.81072026

 $00:45:50.556 \longrightarrow 00:45:52.490$ effects on a seizure medication,

NOTE Confidence: 0.81072026

00:45:52.490 --> 00:45:54.764 it's best to change that method

NOTE Confidence: 0.81072026

 $00{:}45{:}54.764 \dashrightarrow 00{:}45{:}57.039$ utilized a different Med rather than

 $00:45:57.039 \longrightarrow 00:45:59.799$ have the patient you know have a poorer

NOTE Confidence: 0.81072026

 $00:45:59.870 \longrightarrow 00:46:02.509$ quality of life from from side effects.

NOTE Confidence: 0.81072026

00:46:02.510 --> 00:46:04.370 Then I actively utilized counseling

NOTE Confidence: 0.81072026

00:46:04.370 --> 00:46:06.790 for a number of patients of mine,

NOTE Confidence: 0.81072026

 $00:46:06.790 \longrightarrow 00:46:08.842$ Brian, who was also on the

NOTE Confidence: 0.81072026

00:46:08.842 --> 00:46:10.720 call and be speaking later,

NOTE Confidence: 0.81072026

00:46:10.720 --> 00:46:13.576 has been just truly wonderful to work with.

NOTE Confidence: 0.81072026

 $00:46:13.580 \longrightarrow 00:46:15.445$ The trouble he's been extremely

NOTE Confidence: 0.81072026

00:46:15.445 --> 00:46:17.859 helpful with so many patients in mind,

NOTE Confidence: 0.81072026

 $00{:}46{:}17.860 \dashrightarrow 00{:}46{:}20.580$ and I really think that this is an

NOTE Confidence: 0.81072026

00:46:20.580 --> 00:46:22.150 important component of treatment,

NOTE Confidence: 0.81072026

 $00:46:22.150 \longrightarrow 00:46:24.286$ which I'm proud that we offer.

NOTE Confidence: 0.81072026

 $00{:}46{:}24.290 \dashrightarrow 00{:}46{:}25.002$ It's Milo.

NOTE Confidence: 0.81072026

00:46:25.002 --> 00:46:27.142 And then of course, physical therapy,

NOTE Confidence: 0.81072026

00:46:27.142 --> 00:46:27.854 rehabilitation, exercise,

 $00:46:27.854 \longrightarrow 00:46:28.566$ or key,

NOTE Confidence: 0.81072026

 $00{:}46{:}28.570 \dashrightarrow 00{:}46{:}31.120$ I advise patients exercise as

NOTE Confidence: 0.81072026

 $00:46:31.120 \longrightarrow 00:46:32.650$ much as possible.

NOTE Confidence: 0.81072026

 $00:46:32.650 \longrightarrow 00:46:35.051$ Doctor Paris is an example in my

NOTE Confidence: 0.81072026

 $00:46:35.051 \longrightarrow 00:46:38.233$ mind of someone who has been able to

NOTE Confidence: 0.81072026

 $00:46:38.233 \longrightarrow 00:46:39.893$ maintain exercise after diagnosis

NOTE Confidence: 0.81072026

 $00:46:39.893 \longrightarrow 00:46:42.523$ and a truly believe it's been very

NOTE Confidence: 0.81072026

 $00:46:42.523 \longrightarrow 00:46:45.352$ helpful for for her up to this point.

NOTE Confidence: 0.81072026

 $00{:}46{:}45.352 \dashrightarrow 00{:}46{:}47.909$ So I speak with everyone else about

NOTE Confidence: 0.81072026

 $00:46:47.909 \longrightarrow 00:46:50.261$ exercise and fitness and see if

NOTE Confidence: 0.81072026

 $00:46:50.261 \longrightarrow 00:46:52.628$ we can optimize that for folks.

NOTE Confidence: 0.81072026

 $00:46:52.630 \longrightarrow 00:46:55.438$ And then of course also optimizing

NOTE Confidence: 0.81072026

 $00:46:55.438 \longrightarrow 00:46:57.932$ nutrition and utilizing our nutritionist

NOTE Confidence: 0.81072026

 $00:46:57.932 \longrightarrow 00:47:00.637$ Rebecca and the tribal office.

NOTE Confidence: 0.81072026

00:47:00.640 --> 00:47:00.956 Alright,

NOTE Confidence: 0.81072026

 $00:47:00.956 \longrightarrow 00:47:04.193$ I will wrap up at that point on my talk

 $00{:}47{:}04.193 \dashrightarrow 00{:}47{:}07.037$ and I think I'll pass it back to Jenn.

NOTE Confidence: 0.8471315

 $00:47:09.900 \longrightarrow 00:47:11.568$ For moderation, yes, and

NOTE Confidence: 0.8471315

 $00:47:11.570 \longrightarrow 00:47:14.078$ I'm going to pass it right

NOTE Confidence: 0.8471315

00:47:14.078 --> 00:47:15.750 along to Doctor Mcgibbon,

NOTE Confidence: 0.8471315

 $00:47:15.750 \longrightarrow 00:47:17.840$ who is also a friend,

NOTE Confidence: 0.8471315

 $00:47:17.840 \longrightarrow 00:47:19.512$ an A radiation oncologist

NOTE Confidence: 0.8471315

00:47:19.512 --> 00:47:21.184 out of Greenwich primarily.

NOTE Confidence: 0.81701535

00:47:22.080 --> 00:47:23.685 Yeah, thanks so much introduction

NOTE Confidence: 0.81701535

 $00:47:23.685 \longrightarrow 00:47:26.100$ we try to share my screen here.

NOTE Confidence: 0.68255514

 $00{:}47{:}28.580 \dashrightarrow 00{:}47{:}35.580$ See can see see that OK switch to. Slideshow.

NOTE Confidence: 0.85751534

00:47:38.960 --> 00:47:40.148 OK look OK.

NOTE Confidence: 0.7843451

 $00:47:42.440 \longrightarrow 00:47:45.037$ So yes, thanks again for the introduction,

NOTE Confidence: 0.7843451

00:47:45.040 --> 00:47:47.272 so I have the pleasure of

NOTE Confidence: 0.7843451

 $00:47:47.272 \longrightarrow 00:47:48.760$ starting work for Yale.

NOTE Confidence: 0.7843451

 $00:47:48.760 \longrightarrow 00:47:51.392$ 12 years ago, up in the Trumbull area

 $00:47:51.392 \longrightarrow 00:47:53.757$ and First start working with Doctor

NOTE Confidence: 0.7843451

 $00{:}47{:}53.757 \dashrightarrow 00{:}47{:}56.199$ One in there and Doctor Montero.

NOTE Confidence: 0.7843451

00:47:56.200 --> 00:47:58.060 And now the medical Director

NOTE Confidence: 0.7843451

00:47:58.060 --> 00:47:59.176 for Radiation Oncology,

NOTE Confidence: 0.7843451

 $00:47:59.180 \longrightarrow 00:48:01.095$ Greenwich Hospital and getting to

NOTE Confidence: 0.7843451

 $00:48:01.095 \longrightarrow 00:48:03.428$ extend the smile care down this

NOTE Confidence: 0.7843451

 $00:48:03.428 \longrightarrow 00:48:05.885$ way and actually I have a personal

NOTE Confidence: 0.7843451

00:48:05.885 --> 00:48:07.740 connection with Doctor Bear says,

NOTE Confidence: 0.7843451

00:48:07.740 --> 00:48:09.248 well, kind of highlights,

NOTE Confidence: 0.7843451

 $00:48:09.248 \longrightarrow 00:48:11.510$ the nice coordination mean the system.

NOTE Confidence: 0.7843451

 $00{:}48{:}11.510 \dashrightarrow 00{:}48{:}13.106$ Are within the system because colleague

NOTE Confidence: 0.7843451

 $00:48:13.106 \longrightarrow 00:48:15.100$ of mine and the radiation side Dr.

NOTE Confidence: 0.7843451

 $00:48:15.100 \longrightarrow 00:48:17.308$ Contesti was actually the 1st to see her,

NOTE Confidence: 0.7843451

 $00:48:17.310 \longrightarrow 00:48:18.816$ but she lived closer to tremble

NOTE Confidence: 0.7843451

 $00:48:18.816 \longrightarrow 00:48:21.135$ and so I got to see her and offer

NOTE Confidence: 0.7843451

 $00:48:21.135 \longrightarrow 00:48:23.077$ that same kind of yield quality of

 $00:48:23.077 \longrightarrow 00:48:24.961$ radiation there and so it's wonderful

NOTE Confidence: 0.7843451

 $00:48:24.961 \longrightarrow 00:48:28.650$ to see her doing doing so well.

NOTE Confidence: 0.7843451

 $00:48:28.650 \longrightarrow 00:48:31.050$ Can I just talk through at least some

NOTE Confidence: 0.7843451

 $00:48:31.050 \longrightarrow 00:48:33.367$ of the roles of radiation therapy

NOTE Confidence: 0.7843451

 $00:48:33.367 \longrightarrow 00:48:35.827$ in the treatment of brain tumors?

NOTE Confidence: 0.7843451

00:48:35.830 --> 00:48:37.630 I don't have any disclosures,

NOTE Confidence: 0.7843451

 $00:48:37.630 \longrightarrow 00:48:38.569$ by the way,

NOTE Confidence: 0.7843451

00:48:38.569 --> 00:48:40.447 so where does radiation therapy fit

NOTE Confidence: 0.7843451

00:48:40.447 --> 00:48:43.001 in so in benign tumors sometimes will

NOTE Confidence: 0.7843451

 $00{:}48{:}43.001 \dashrightarrow 00{:}48{:}44.925$ do so called definitive radiation

NOTE Confidence: 0.7843451

00:48:44.925 --> 00:48:46.960 as a replacement for surgery,

NOTE Confidence: 0.7843451

 $00:48:46.960 \longrightarrow 00:48:50.182$ or as it's been shown earlier in the talks,

NOTE Confidence: 0.7843451

 $00{:}48{:}50.190 \dashrightarrow 00{:}48{:}52.338$ will do post operative radiation therapy.

NOTE Confidence: 0.7843451

 $00:48:52.340 \longrightarrow 00:48:54.482$ If there's been left behind or were

NOTE Confidence: 0.7843451

 $00:48:54.482 \longrightarrow 00:48:56.931$ worried that it will progress in Casa

 $00:48:56.931 \longrightarrow 00:48:59.127$ problem and more commonly were involved

NOTE Confidence: 0.7843451

 $00:48:59.195 \longrightarrow 00:49:01.775$ in malignant tumors like the glioblastomas.

NOTE Confidence: 0.7843451

 $00:49:01.780 \longrightarrow 00:49:04.548$ Either after a biopsy has been done or

NOTE Confidence: 0.7843451

 $00:49:04.548 \longrightarrow 00:49:07.437$ after when the more impressive surgeries,

NOTE Confidence: 0.7843451

 $00{:}49{:}07.440 \dashrightarrow 00{:}49{:}09.455$ like the maximum safe resections

NOTE Confidence: 0.7843451

00:49:09.455 --> 00:49:10.664 like Doctor Moliterno,

NOTE Confidence: 0.7843451

 $00:49:10.670 \longrightarrow 00:49:11.478$ was highlighting.

NOTE Confidence: 0.7843451

00:49:11.478 --> 00:49:12.690 And of course,

NOTE Confidence: 0.7843451

00:49:12.690 --> 00:49:15.395 we're always collaborating with Neurooncology

NOTE Confidence: 0.7843451

00:49:15.395 --> 00:49:18.100 as well for concurrent chemotherapy

NOTE Confidence: 0.7843451

 $00{:}49{:}18.168 \dashrightarrow 00{:}49{:}20.436$ and other treatments of that type.

NOTE Confidence: 0.7843451

 $00:49:20.440 \longrightarrow 00:49:21.020$ For us,

NOTE Confidence: 0.7843451

 $00:49:21.020 \longrightarrow 00:49:22.760$ the people become familiar with this.

NOTE Confidence: 0.7843451

 $00{:}49{:}22.760 \longrightarrow 00{:}49{:}25.289$ If you only see my cursor on the top

NOTE Confidence: 0.7843451

 $00:49:25.289 \longrightarrow 00:49:27.973$ left is a picture of one of our common.

NOTE Confidence: 0.7843451

 $00:49:27.980 \longrightarrow 00:49:29.430$ It's called a linear accelerator.

 $00:49:29.430 \longrightarrow 00:49:31.098$ It's the machine that shoots the

NOTE Confidence: 0.7843451

00:49:31.098 --> 00:49:33.164 X Rays and we have what looks

NOTE Confidence: 0.7843451

 $00:49:33.164 \longrightarrow 00:49:34.940$ like a black table top here,

NOTE Confidence: 0.7843451

 $00:49:34.940 \longrightarrow 00:49:36.632$ and patients will lie on that

NOTE Confidence: 0.7843451

 $00:49:36.632 \longrightarrow 00:49:38.420$ and will create a face mask.

NOTE Confidence: 0.7843451

 $00:49:38.420 \longrightarrow 00:49:41.030$ And this is just one example of a mask.

NOTE Confidence: 0.7843451

 $00:49:41.030 \longrightarrow 00:49:42.190$ We have different ones,

NOTE Confidence: 0.7843451

 $00:49:42.190 \longrightarrow 00:49:43.350$ some have opening some,

NOTE Confidence: 0.7843451

 $00:49:43.350 \longrightarrow 00:49:44.088$ some do not,

NOTE Confidence: 0.7843451

 $00:49:44.088 \longrightarrow 00:49:46.223$ but the idea is we're going to be

NOTE Confidence: 0.7843451

 $00{:}49{:}46.223 \dashrightarrow 00{:}49{:}47.988$ using radiation for multiple days.

NOTE Confidence: 0.7843451

 $00{:}49{:}47.990 \dashrightarrow 00{:}49{:}50.591$ We need to make sure the X Rays are

NOTE Confidence: 0.7843451

 $00{:}49{:}50.591 \dashrightarrow 00{:}49{:}52.967$ hitting the exact same spot each time.

NOTE Confidence: 0.7843451

 $00:49:52.970 \longrightarrow 00:49:54.778$ And so we need something to hold the

NOTE Confidence: 0.7843451

 $00:49:54.778 \longrightarrow 00:49:56.837$ head and shoulders in the same position.

 $00:49:59.260 \longrightarrow 00:50:00.900$ To go further from there,

NOTE Confidence: 0.81071264

 $00{:}50{:}00.900 \dashrightarrow 00{:}50{:}02.846$ you know we need to really customize

NOTE Confidence: 0.81071264

 $00:50:02.846 \longrightarrow 00:50:05.048$ the X Ray beam so they're only

NOTE Confidence: 0.81071264

 $00:50:05.048 \longrightarrow 00:50:07.004$ shooting where we want and trying

NOTE Confidence: 0.81071264

 $00:50:07.073 \longrightarrow 00:50:09.068$ to spare the surrounding tissues.

NOTE Confidence: 0.81071264

 $00:50:09.070 \longrightarrow 00:50:11.254$ And we do that if it look in

NOTE Confidence: 0.81071264

00:50:11.254 --> 00:50:13.319 where the Red Arrows pointing,

NOTE Confidence: 0.81071264

00:50:13.320 --> 00:50:15.276 that's the head of this machine,

NOTE Confidence: 0.81071264

 $00:50:15.280 \longrightarrow 00:50:18.223$ and in that there's this object to the right.

NOTE Confidence: 0.81071264

00:50:18.230 --> 00:50:19.654 Scalding multileaf collimator and

NOTE Confidence: 0.81071264

 $00:50:19.654 \longrightarrow 00:50:22.132$ it's a series of stacked leaves metal

NOTE Confidence: 0.81071264

 $00{:}50{:}22.132 \dashrightarrow 00{:}50{:}23.806$ leaves that can create any shape

NOTE Confidence: 0.81071264

 $00:50:23.806 \longrightarrow 00:50:25.748$ that we want within a rectangle,

NOTE Confidence: 0.81071264

 $00{:}50{:}25.750 {\:{\mbox{--}}\!\!>}\ 00{:}50{:}27.210$ and between creating different

NOTE Confidence: 0.81071264

 $00:50:27.210 \longrightarrow 00:50:28.670$ shapes with that MLC.

NOTE Confidence: 0.81071264

 $00:50:28.670 \longrightarrow 00:50:30.749$ And moving the actual head of the

 $00:50:30.749 \longrightarrow 00:50:32.687$ machine to different angles around the

NOTE Confidence: 0.81071264

 $00{:}50{:}32.687 \dashrightarrow 00{:}50{:}34.337$ patient and adjusting the intensity

NOTE Confidence: 0.81071264

 $00{:}50{:}34.337 \dashrightarrow 00{:}50{:}36.650$ of the beam at each of those angles,

NOTE Confidence: 0.81071264

 $00:50:36.650 \longrightarrow 00:50:39.482$ we can get a very fancy

NOTE Confidence: 0.81071264

 $00:50:39.482 \longrightarrow 00:50:40.898$ dose distribution inside.

NOTE Confidence: 0.81071264

00:50:40.900 --> 00:50:41.436 And Furthermore,

NOTE Confidence: 0.81071264

 $00:50:41.436 \longrightarrow 00:50:43.580$ we can take what look like the arms

NOTE Confidence: 0.81071264

00:50:43.640 --> 00:50:45.536 of the machine here on each side and

NOTE Confidence: 0.81071264

 $00{:}50{:}45.536 \dashrightarrow 00{:}50{:}47.595$ spend the machine around a patient each

NOTE Confidence: 0.81071264

 $00:50:47.595 \longrightarrow 00:50:49.646$ day before treatment and take an image.

NOTE Confidence: 0.81071264

 $00:50:49.646 \longrightarrow 00:50:52.410$ We see a couple of examples in the left here,

NOTE Confidence: 0.81071264

 $00:50:52.410 \longrightarrow 00:50:54.579$ so we can make sure that how we've planned

NOTE Confidence: 0.81071264

 $00:50:54.579 \longrightarrow 00:50:56.644$ the person based on a special CAT scan

NOTE Confidence: 0.81071264

 $00:50:56.644 \longrightarrow 00:50:58.980$ as to exactly how they're lined internally,

NOTE Confidence: 0.81071264

 $00:50:58.980 \longrightarrow 00:51:00.402$ so we have the mask to

 $00:51:00.402 \longrightarrow 00:51:02.000$ help get us in position,

NOTE Confidence: 0.81071264

 $00:51:02.000 \longrightarrow 00:51:03.918$ but we don't rely just on that.

NOTE Confidence: 0.81071264

 $00:51:03.920 \longrightarrow 00:51:06.251$ We go further with imaging to make

NOTE Confidence: 0.81071264

00:51:06.251 --> 00:51:08.684 sure we are right on target before

NOTE Confidence: 0.81071264

 $00:51:08.684 \longrightarrow 00:51:11.090$ we turn the beam on that day.

NOTE Confidence: 0.81071264

00:51:11.090 --> 00:51:12.830 I guess I mean helpful.

NOTE Confidence: 0.81071264

 $00:51:12.830 \longrightarrow 00:51:14.560$ Just go through 2 examples,

NOTE Confidence: 0.81071264

 $00:51:14.560 \longrightarrow 00:51:15.256$ one glioblastoma,

NOTE Confidence: 0.81071264

00:51:15.256 --> 00:51:16.300 an one meningioma,

NOTE Confidence: 0.81071264

00:51:16.300 --> 00:51:18.911 and I think they both really highlight

NOTE Confidence: 0.81071264

 $00:51:18.911 \longrightarrow 00:51:20.415$ the close collaboration that's

NOTE Confidence: 0.81071264

 $00:51:20.415 \longrightarrow 00:51:22.359$ necessary and that we really enjoy

NOTE Confidence: 0.81071264

 $00:51:22.359 \longrightarrow 00:51:24.724$ in this yell system and a cross

NOTE Confidence: 0.81071264

 $00:51:24.724 \longrightarrow 00:51:26.710$ between New Haven and the satellite.

NOTE Confidence: 0.81071264

 $00:51:26.710 \longrightarrow 00:51:28.440$ So in this one case,

NOTE Confidence: 0.81071264

 $00:51:28.440 \longrightarrow 00:51:30.954$ the patient was in with headaches

 $00:51:30.954 \longrightarrow 00:51:32.630$ and difficulty with concentrating.

NOTE Confidence: 0.81071264

 $00{:}51{:}32.630 \dashrightarrow 00{:}51{:}35.396$ And an MRI was performed which

NOTE Confidence: 0.81071264

 $00:51:35.396 \longrightarrow 00:51:38.568$ showed this lesion on the left side.

NOTE Confidence: 0.81071264

00:51:38.570 --> 00:51:40.614 And you notice that there's one type

NOTE Confidence: 0.81071264

 $00:51:40.614 \longrightarrow 00:51:42.050$ of sequence samaritas called T1.

NOTE Confidence: 0.81071264

00:51:42.050 --> 00:51:43.500 It's with contrast, reshoot, Diane,

NOTE Confidence: 0.81071264

 $00:51:43.500 \longrightarrow 00:51:45.820$ but there's another type of scenes called T2.

NOTE Confidence: 0.81071264

 $00:51:45.820 \longrightarrow 00:51:47.972$ And if you look at the top left

NOTE Confidence: 0.81071264

 $00:51:47.972 \longrightarrow 00:51:49.300$ in the top right,

NOTE Confidence: 0.81071264

 $00:51:49.300 \longrightarrow 00:51:51.040$ this has taken a similar slice,

NOTE Confidence: 0.81071264

 $00:51:51.040 \longrightarrow 00:51:53.360$ but it looks quite different between the two,

NOTE Confidence: 0.81071264

 $00:51:53.360 \longrightarrow 00:51:54.820$ and it's really highlighting the

NOTE Confidence: 0.81071264

 $00:51:54.820 \longrightarrow 00:51:56.839$ bulk of the tumor on the left,

NOTE Confidence: 0.81071264

 $00:51:56.840 \longrightarrow 00:51:58.961$ but showing some of the fluid dynamics

NOTE Confidence: 0.81071264

 $00:51:58.961 \longrightarrow 00:52:00.610$ and swelling around on the right,

 $00:52:00.610 \longrightarrow 00:52:02.142$ which becomes important for

NOTE Confidence: 0.81071264

 $00:52:02.142 \longrightarrow 00:52:03.674$ us from radiation planning.

NOTE Confidence: 0.81071264

00:52:03.680 --> 00:52:05.320 And you know what's the?

NOTE Confidence: 0.81071264

 $00:52:05.320 \longrightarrow 00:52:06.960$ What's the basic algorithm here?

NOTE Confidence: 0.81071264

 $00:52:06.960 \longrightarrow 00:52:08.600$ We want maximum safe surgery.

NOTE Confidence: 0.81071264

 $00{:}52{:}08.600 \dashrightarrow 00{:}52{:}10.490$ Then there's a gap for healing

NOTE Confidence: 0.81071264

 $00:52:10.490 \longrightarrow 00:52:12.210$ about three to six weeks,

NOTE Confidence: 0.81071264

 $00:52:12.210 \longrightarrow 00:52:14.298$ and then we start with Tim's

NOTE Confidence: 0.81071264

 $00:52:14.298 \longrightarrow 00:52:15.690$ online telephone line chemotherapy

NOTE Confidence: 0.81071264

 $00{:}52{:}15.747 \dashrightarrow 00{:}52{:}17.457$ and radiation at the same time.

NOTE Confidence: 0.81071264

 $00{:}52{:}17.460 \dashrightarrow 00{:}52{:}19.170$ And then we keep going with

NOTE Confidence: 0.81071264

 $00:52:19.170 \longrightarrow 00:52:21.060$ the time zone line afterwards,

NOTE Confidence: 0.81071264

 $00:52:21.060 \longrightarrow 00:52:22.740$ and then possibly do those

NOTE Confidence: 0.81071264

 $00:52:22.740 \longrightarrow 00:52:24.084$ alternating electrical fields that

NOTE Confidence: 0.81071264

 $00:52:24.084 \longrightarrow 00:52:25.657$ Hunter Biden was talking about.

NOTE Confidence: 0.81071264

 $00:52:25.660 \longrightarrow 00:52:27.949$ So when the patient comes to us,

 $00:52:27.950 \longrightarrow 00:52:29.740$ they've already we are established

NOTE Confidence: 0.81071264

 $00{:}52{:}29.740 \dashrightarrow 00{:}52{:}32.163$ with their performance test is like and

NOTE Confidence: 0.81071264

00:52:32.163 --> 00:52:34.172 some of the special markers like that.

NOTE Confidence: 0.81071264

 $00:52:34.180 \longrightarrow 00:52:36.286$ MGM T that was mentioned and.

NOTE Confidence: 0.81071264

 $00:52:36.290 \longrightarrow 00:52:38.210$ We see if there are eligible

NOTE Confidence: 0.81071264

 $00:52:38.210 \longrightarrow 00:52:39.490$ for any clinical trials.

NOTE Confidence: 0.81071264

 $00:52:39.490 \longrightarrow 00:52:42.148$ And then we get into what

NOTE Confidence: 0.81071264

00:52:42.148 --> 00:52:43.920 style of radiation should

NOTE Confidence: 0.8468915

 $00:52:44.008 \longrightarrow 00:52:46.046$ we offer? And the standard ratio

NOTE Confidence: 0.8468915

 $00:52:46.046 \longrightarrow 00:52:47.930$ that we give is 30 treatments.

NOTE Confidence: 0.8468915

 $00:52:47.930 \longrightarrow 00:52:50.086$ It has an initial phase with slightly

NOTE Confidence: 0.8468915

 $00:52:50.086 \longrightarrow 00:52:52.326$ bigger fields and a second phase called

NOTE Confidence: 0.8468915

 $00:52:52.326 \longrightarrow 00:52:54.210$ the Cone down with smaller fields,

NOTE Confidence: 0.8468915

00:52:54.210 --> 00:52:55.780 but it's 30 individual days

NOTE Confidence: 0.8468915

 $00:52:55.780 \longrightarrow 00:52:57.036$ done Monday to Friday,

 $00:52:57.040 \longrightarrow 00:52:58.610$ weekends off and at each

NOTE Confidence: 0.8468915

00:52:58.610 --> 00:53:00.180 treatment takes about 15 minutes,

NOTE Confidence: 0.8468915

 $00:53:00.180 \longrightarrow 00:53:03.508$ and so it's about a six week course.

NOTE Confidence: 0.8468915

 $00:53:03.510 \longrightarrow 00:53:04.985$ And there are some special

NOTE Confidence: 0.8468915

 $00:53:04.985 \longrightarrow 00:53:06.165$ circumstances where will do.

NOTE Confidence: 0.8468915

00:53:06.170 --> 00:53:07.640 It's called hypo fractionated radiation.

NOTE Confidence: 0.8468915

 $00{:}53{:}07.640 \dashrightarrow 00{:}53{:}09.852$ We're using a shorter course or it's

NOTE Confidence: 0.8468915

 $00:53:09.852 \longrightarrow 00:53:11.930$ a little higher dose per day and

NOTE Confidence: 0.8468915

 $00:53:11.930 \longrightarrow 00:53:13.840$ we have that as a potential too,

NOTE Confidence: 0.8468915

 $00:53:13.840 \longrightarrow 00:53:16.306$ and that's part of the multidisciplinary

NOTE Confidence: 0.8468915

 $00{:}53{:}16.306 {\:{\mbox{--}}}{\:{\mbox{-}}} 00{:}53{:}19.104$ discussion as to really which is the best

NOTE Confidence: 0.8468915

 $00:53:19.104 \longrightarrow 00:53:21.949$ and how can we pair this with chemotherapy.

NOTE Confidence: 0.8468915

 $00:53:21.950 \longrightarrow 00:53:23.798$ So the first thing we do,

NOTE Confidence: 0.8468915

 $00:53:23.800 \longrightarrow 00:53:25.350$ we generally meet the patient

NOTE Confidence: 0.8468915

 $00:53:25.350 \longrightarrow 00:53:27.558$ after surgery and if else is and

NOTE Confidence: 0.8468915

00:53:27.558 --> 00:53:29.334 they've usually gotten an MRI with,

 $00:53:29.340 \longrightarrow 00:53:30.880$ they've come to us outside.

NOTE Confidence: 0.8468915

 $00:53:30.880 \longrightarrow 00:53:33.643$ We get one and we really want to see.

NOTE Confidence: 0.8468915

 $00:53:33.650 \longrightarrow 00:53:36.086$ OK, what's the difference now in the

NOTE Confidence: 0.8468915

 $00:53:36.086 \longrightarrow 00:53:38.946$ in the cavity and even see compared to

NOTE Confidence: 0.8468915

 $00:53:38.946 \longrightarrow 00:53:41.390$ before that you know this has been.

NOTE Confidence: 0.8468915

 $00:53:41.390 \longrightarrow 00:53:42.242$ Debo quite a bit.

NOTE Confidence: 0.8468915

 $00:53:42.242 \longrightarrow 00:53:44.303$ There's a little bit of a white here

NOTE Confidence: 0.8468915

00:53:44.303 --> 00:53:45.759 that's more postoperative change,

NOTE Confidence: 0.8468915

 $00{:}53{:}45.760 \dashrightarrow 00{:}53{:}47.020$ not necessarily cancer left behind

NOTE Confidence: 0.8468915

 $00:53:47.020 \longrightarrow 00:53:49.029$ and you can see the difference now.

NOTE Confidence: 0.8468915

 $00{:}53{:}49.030 \dashrightarrow 00{:}53{:}50.668$ Things look again between the T1

NOTE Confidence: 0.8468915

 $00:53:50.668 \longrightarrow 00:53:52.981$ for these left room, just empty 2.

NOTE Confidence: 0.8468915

 $00:53:52.981 \longrightarrow 00:53:55.423$ And when it comes to radiation,

NOTE Confidence: 0.8468915

00:53:55.430 --> 00:53:57.278 the principle is we were going

NOTE Confidence: 0.8468915

 $00:53:57.278 \longrightarrow 00:53:58.940$ to get a CAT scan.

 $00:53:58.940 \longrightarrow 00:54:00.535$ We're going to overlay the

NOTE Confidence: 0.8468915

00:54:00.535 --> 00:54:02.130 various Mris and so here.

NOTE Confidence: 0.8468915

 $00:54:02.130 \longrightarrow 00:54:04.370$ We've taken in this blueish color is

NOTE Confidence: 0.8468915

 $00:54:04.370 \longrightarrow 00:54:06.654$ we've copied in what the tumor look

NOTE Confidence: 0.8468915

 $00:54:06.654 \longrightarrow 00:54:08.912$ like before the surgery and now copy

NOTE Confidence: 0.8468915

 $00{:}54{:}08.912 \dashrightarrow 00{:}54{:}11.068$ it onto the MRI from after surgery.

NOTE Confidence: 0.8468915

00:54:11.070 --> 00:54:14.260 And then we draw in more in the middle here.

NOTE Confidence: 0.8468915

00:54:14.260 --> 00:54:15.328 This pink drawing.

NOTE Confidence: 0.8468915

00:54:15.328 --> 00:54:15.684 OK?

NOTE Confidence: 0.8468915

 $00:54:15.684 \longrightarrow 00:54:17.464$ What are we concerned about

NOTE Confidence: 0.8468915

 $00{:}54{:}17.464 \dashrightarrow 00{:}54{:}19.633$ just from the MRI afterwards we

NOTE Confidence: 0.8468915

 $00{:}54{:}19.633 \dashrightarrow 00{:}54{:}21.840$ combine these things on the right.

NOTE Confidence: 0.8468915

 $00:54:21.840 \longrightarrow 00:54:24.080$ And then we get to work with

NOTE Confidence: 0.8468915

 $00:54:24.080 \longrightarrow 00:54:25.040$ our physics crew.

NOTE Confidence: 0.8468915

00:54:25.040 --> 00:54:27.632 And if you kind of adjust your eyes

NOTE Confidence: 0.8468915

 $00:54:27.632 \longrightarrow 00:54:30.257$ from this is a 3D or 2D representation

 $00:54:30.257 \longrightarrow 00:54:33.039$ of a 3D process so you can see here.

NOTE Confidence: 0.8468915

 $00:54:33.040 \longrightarrow 00:54:35.182$ It looks like someone's face with the

NOTE Confidence: 0.8468915

 $00:54:35.182 \longrightarrow 00:54:37.812$ nose and the eyes and these pink and

NOTE Confidence: 0.8468915

 $00:54:37.812 \longrightarrow 00:54:40.079$ blue is highlighting where the tumor is.

NOTE Confidence: 0.8468915

00:54:40.080 --> 00:54:41.790 The red dashed line is simulating

NOTE Confidence: 0.8468915

 $00:54:41.790 \longrightarrow 00:54:44.240$ the Ark as the machine moves around,

NOTE Confidence: 0.8468915

 $00:54:44.240 \longrightarrow 00:54:46.160$ and these yellow little funny rectangles.

NOTE Confidence: 0.8468915

00:54:46.160 --> 00:54:47.084 That's that MLC,

NOTE Confidence: 0.8468915

 $00:54:47.084 \longrightarrow 00:54:48.316$ creating the different shapes

NOTE Confidence: 0.8468915

 $00:54:48.316 \longrightarrow 00:54:49.680$ as it goes around.

NOTE Confidence: 0.8468915

 $00{:}54{:}49.680 \dashrightarrow 00{:}54{:}51.485$ So manipulating all those things

NOTE Confidence: 0.8468915

00:54:51.485 --> 00:54:53.290 in the field design process.

NOTE Confidence: 0.8468915

 $00{:}54{:}53.290 \dashrightarrow 00{:}54{:}54.012$ We get.

NOTE Confidence: 0.8468915

 $00:54:54.012 \longrightarrow 00:54:55.817$ This type of dose distribution

NOTE Confidence: 0.8468915

 $00:54:55.817 \longrightarrow 00:54:57.919$ you can see on the right.

 $00:54:57.920 \longrightarrow 00:54:59.660$ So now we've taken those drawings.

NOTE Confidence: 0.8468915

 $00{:}54{:}59.660 \dashrightarrow 00{:}55{:}01.110$ We've actually created real dose.

NOTE Confidence: 0.8468915

 $00:55:01.110 \longrightarrow 00:55:02.916$ We can see that we're trying to

NOTE Confidence: 0.8468915

 $00:55:02.916 \longrightarrow 00:55:05.025$ spare the rest of the brain and

NOTE Confidence: 0.8468915

00:55:05.025 --> 00:55:06.615 really concentrate what's in here,

NOTE Confidence: 0.8468915

 $00:55:06.620 \longrightarrow 00:55:08.706$ and this is a multi day process

NOTE Confidence: 0.8468915

00:55:08.706 --> 00:55:10.866 to get things right between our

NOTE Confidence: 0.8468915

00:55:10.866 --> 00:55:12.856 planning session when we're ready

NOTE Confidence: 0.8468915

 $00:55:12.856 \longrightarrow 00:55:14.979$ to ready to start treatment.

NOTE Confidence: 0.8468915

 $00.55.14.980 \longrightarrow 00.55.16.606$ And as part of the review,

NOTE Confidence: 0.8468915

 $00:55:16.610 \longrightarrow 00:55:17.970$ we look at something called

NOTE Confidence: 0.8468915

 $00{:}55{:}17.970 \dashrightarrow 00{:}55{:}19.058$ the dose volume histogram,

NOTE Confidence: 0.8468915

 $00:55:19.060 \longrightarrow 00:55:21.236$ where every structure go to the next slide.

NOTE Confidence: 0.8468915

 $00:55:21.240 \longrightarrow 00:55:22.890$ Every structure that we care bout

NOTE Confidence: 0.8468915

 $00:55:22.890 \longrightarrow 00:55:24.230$ between what's called the PTV,

NOTE Confidence: 0.8166814

 $00:55:24.230 \longrightarrow 00:55:26.127$ which is what we're planning to target.

00:55:26.130 --> 00:55:27.756 The optic nerves eyes the Coakley,

NOTE Confidence: 0.8166814

 $00:55:27.760 \longrightarrow 00:55:28.848$ the brain stem, anything that

NOTE Confidence: 0.8166814

 $00:55:28.848 \longrightarrow 00:55:30.480$ we care about that's in there.

NOTE Confidence: 0.8166814

 $00:55:30.480 \longrightarrow 00:55:32.188$ We can model. How much dose is

NOTE Confidence: 0.8166814

00:55:32.188 --> 00:55:34.431 going to it and we have very strict

NOTE Confidence: 0.8166814

00:55:34.431 --> 00:55:36.469 criteria about how much is too much,

NOTE Confidence: 0.8166814

 $00:55:36.470 \longrightarrow 00:55:38.630$ how much can be repaired and we keep

NOTE Confidence: 0.8166814

00:55:38.630 --> 00:55:40.463 going round and round and round till

NOTE Confidence: 0.8166814

 $00{:}55{:}40.463 \dashrightarrow 00{:}55{:}42.908$ we have a plan that meets all the goals

NOTE Confidence: 0.8166814

 $00:55:42.908 \longrightarrow 00:55:45.170$ while maximizing goes to the to the tumor.

NOTE Confidence: 0.7818672

 $00:55:48.600 \dashrightarrow 00:55:51.472$ Move on to a meningioma, some enjoy the say.

NOTE Confidence: 0.7818672

 $00:55:51.472 \longrightarrow 00:55:53.062$ The overall treatment concept here.

NOTE Confidence: 0.7818672

00:55:53.070 --> 00:55:56.507 If we go to the NCCN guidelines.

NOTE Confidence: 0.7818672

00:55:56.510 --> 00:55:59.030 The just read this here, so trim

NOTE Confidence: 0.7818672

 $00:55:59.030 \longrightarrow 00:56:01.190$ selection should be based on assessment,

00:56:01.190 --> 00:56:02.630 variety of interrelated factors,

NOTE Confidence: 0.7818672

 $00{:}56{:}02.630 \dashrightarrow 00{:}56{:}04.430$ including patient features, tumor features,

NOTE Confidence: 0.7818672

 $00:56:04.430 \longrightarrow 00:56:06.590$ potential for causing or logic consequences.

NOTE Confidence: 0.7818672

00:56:06.590 --> 00:56:07.637 If untreated presences,

NOTE Confidence: 0.7818672

 $00:56:07.637 \longrightarrow 00:56:09.033$ various symptoms and treatment

NOTE Confidence: 0.7818672

 $00:56:09.033 \longrightarrow 00:56:10.872$ related factors such as neurologic

NOTE Confidence: 0.7818672

00:56:10.872 --> 00:56:12.350 consequences from surgery, radiation,

NOTE Confidence: 0.7818672

 $00:56:12.350 \longrightarrow 00:56:13.790$ likelihood of complete resection.

NOTE Confidence: 0.7818672

 $00{:}56{:}13.790 \dashrightarrow 00{:}56{:}15.590$ Can we do complete irradiation

NOTE Confidence: 0.7818672

 $00:56:15.590 \longrightarrow 00:56:16.670$ with different techniques?

NOTE Confidence: 0.7818672

 $00:56:16.670 \longrightarrow 00:56:18.470$ Treatability with Jennifer Progressives, etc.

NOTE Confidence: 0.7818672

 $00:56:18.470 \longrightarrow 00:56:20.990$ So you can see it's very complicated.

NOTE Confidence: 0.7818672

 $00{:}56{:}20.990 \dashrightarrow 00{:}56{:}23.090$ We really need that multi display

NOTE Confidence: 0.7818672

 $00:56:23.090 \longrightarrow 00:56:25.305$ input which is ending with the

NOTE Confidence: 0.7818672

 $00:56:25.305 \longrightarrow 00:56:27.549$ national lines actually speak to that.

NOTE Confidence: 0.7818672

 $00:56:27.550 \longrightarrow 00:56:30.484$ And that's what we practice at Yale for sure.

 $00:56:30.490 \longrightarrow 00:56:31.471$ Meeting every week.

NOTE Confidence: 0.7818672

 $00:56:31.471 \longrightarrow 00:56:33.106$ I'm talking about individual patients.

NOTE Confidence: 0.7818672

 $00:56:33.110 \longrightarrow 00:56:36.350$ How can we really get this so it's

NOTE Confidence: 0.7818672

 $00:56:36.350 \longrightarrow 00:56:39.638$ customized and we have the best combination?

NOTE Confidence: 0.7818672

 $00:56:39.640 \longrightarrow 00:56:40.510$ For us generally,

NOTE Confidence: 0.7818672

 $00{:}56{:}40.510 \dashrightarrow 00{:}56{:}42.871$ if you know meningiom as coming in and and

NOTE Confidence: 0.7818672

00:56:42.871 --> 00:56:44.810 Doctor Martin give a lot more details,

NOTE Confidence: 0.7818672

 $00:56:44.810 \longrightarrow 00:56:46.526$ I'm being a little broad here,

NOTE Confidence: 0.7818672

00:56:46.530 --> 00:56:48.336 but if something is small and doesn't

NOTE Confidence: 0.7818672

 $00:56:48.336 \longrightarrow 00:56:49.690$ seem regression some progressing,

NOTE Confidence: 0.7818672

 $00:56:49.690 \longrightarrow 00:56:51.120$ sometimes it can be observed,

NOTE Confidence: 0.7818672

00:56:51.120 --> 00:56:52.268 but usually it's surgery

NOTE Confidence: 0.7818672

00:56:52.268 --> 00:56:53.416 that we're leading with,

NOTE Confidence: 0.7818672

 $00:56:53.420 \longrightarrow 00:56:56.290$ and if it turns out to be a grade 1/2,

NOTE Confidence: 0.7818672

 $00:56:56.290 \longrightarrow 00:56:59.338$ which is the lowest kind of least aggressive.

 $00:56:59.340 \longrightarrow 00:57:00.940$ Then we can sometimes observer

NOTE Confidence: 0.7818672

 $00:57:00.940 \longrightarrow 00:57:01.900$ sometimes to radiation.

NOTE Confidence: 0.7818672

00:57:01.900 --> 00:57:04.266 If it's great to, or almost definitely

NOTE Confidence: 0.7818672

 $00:57:04.266 \longrightarrow 00:57:06.058$ doing radiation of his grade 3,

NOTE Confidence: 0.7818672

 $00:57:06.060 \longrightarrow 00:57:07.240$ or definitely doing it,

NOTE Confidence: 0.7818672

 $00:57:07.240 \longrightarrow 00:57:08.420$ and occasionally radiation would

NOTE Confidence: 0.7818672

 $00:57:08.420 \longrightarrow 00:57:10.220$ be a replacement for surgery.

NOTE Confidence: 0.7818672

 $00:57:10.220 \longrightarrow 00:57:13.349$ But that's not as not as common.

NOTE Confidence: 0.7818672

 $00:57:13.350 \longrightarrow 00:57:14.970$ And in terms of UPS,

NOTE Confidence: 0.7818672

 $00:57:14.970 \longrightarrow 00:57:16.266$ the technique usually similar

NOTE Confidence: 0.7818672

 $00{:}57{:}16.266 \dashrightarrow 00{:}57{:}17.238$ to the glioblastoma.

NOTE Confidence: 0.7818672

 $00:57:17.240 \longrightarrow 00:57:18.715$ It's a daily treatment for

NOTE Confidence: 0.7818672

 $00:57:18.715 \longrightarrow 00:57:20.800$ anywhere from 25 to 30 sessions.

NOTE Confidence: 0.7818672

 $00{:}57{:}20.800 \longrightarrow 00{:}57{:}22.415$ Sometimes if it's small enough

NOTE Confidence: 0.7818672

 $00:57:22.415 \longrightarrow 00:57:24.370$ and we feel more confident that,

NOTE Confidence: 0.7818672

 $00:57:24.370 \longrightarrow 00:57:25.990$ say, a grade one tumor,

00:57:25.990 --> 00:57:28.244 although like Doctor Martin was pointing out,

NOTE Confidence: 0.7818672

 $00{:}57{:}28.250 \dashrightarrow 00{:}57{:}29.870$ sometimes we're wrong about that.

NOTE Confidence: 0.7818672

 $00:57:29.870 \longrightarrow 00:57:32.130$ So with very highly selected

NOTE Confidence: 0.7818672

 $00{:}57{:}32.130 \dashrightarrow 00{:}57{:}33.938$ patients sometimes will do

NOTE Confidence: 0.7818672

 $00:57:33.938 \longrightarrow 00:57:35.929$ radiosurgery as a single treatment.

NOTE Confidence: 0.7818672

00:57:35.930 --> 00:57:37.556 And here's a nice collaboration example,

NOTE Confidence: 0.7818672

 $00:57:37.560 \longrightarrow 00:57:39.544$ so we have a 41 year old female

NOTE Confidence: 0.7818672

 $00:57:39.544 \longrightarrow 00:57:41.100$ who presented with eye symptoms.

NOTE Confidence: 0.7818672

00:57:41.100 --> 00:57:42.460 If you look this MRI,

NOTE Confidence: 0.7818672

 $00:57:42.460 \longrightarrow 00:57:43.273$ there's clearly something

NOTE Confidence: 0.7818672

 $00:57:43.273 \longrightarrow 00:57:44.628$ is a little different here.

NOTE Confidence: 0.7818672

 $00:57:44.630 \longrightarrow 00:57:46.208$ These images always like you're looking

NOTE Confidence: 0.7818672

 $00:57:46.208 \longrightarrow 00:57:48.169$ so from their feet towards their head,

NOTE Confidence: 0.7818672

00:57:48.170 --> 00:57:49.997 so the left side of your screen

NOTE Confidence: 0.7818672

 $00:57:49.997 \longrightarrow 00:57:51.977$ is the right side of their body.

 $00:57:51.980 \longrightarrow 00:57:53.072$ So this right side.

NOTE Confidence: 0.7818672

 $00:57:53.072 \longrightarrow 00:57:53.891$ There's something different

NOTE Confidence: 0.7818672

 $00:57:53.891 \longrightarrow 00:57:54.970$ here compared to here,

NOTE Confidence: 0.7818672

 $00:57:54.970 \longrightarrow 00:57:56.560$ and this is the I here's

NOTE Confidence: 0.7818672

 $00:57:56.560 \longrightarrow 00:57:57.960$ the optic nerve coming back.

NOTE Confidence: 0.7818672

00:57:57.960 --> 00:58:00.408 If you like these kind of black arrows here,

NOTE Confidence: 0.7818672

 $00:58:00.410 \longrightarrow 00:58:02.036$ these are very important blood vessels.

NOTE Confidence: 0.7818672

00:58:02.040 --> 00:58:03.944 If you look at this object here,

NOTE Confidence: 0.7818672

 $00{:}58{:}03.950 \dashrightarrow 00{:}58{:}06.276$ this is the brain stem, so this is.

NOTE Confidence: 0.7818672

 $00{:}58{:}06.276 \dashrightarrow 00{:}58{:}08.208$ A very very critical area and

NOTE Confidence: 0.7818672

 $00{:}58{:}08.208 \mathrel{--}{>} 00{:}58{:}10.599$ this lady in particular had some

NOTE Confidence: 0.7818672

00:58:10.599 --> 00:58:13.020 worsening vision over about a year,

NOTE Confidence: 0.7818672

 $00:58:13.020 \longrightarrow 00:58:16.149$ but then it really escalated pretty quickly.

NOTE Confidence: 0.7818672

00:58:16.150 --> 00:58:16.486 Scott,

NOTE Confidence: 0.7818672

 $00:58:16.486 \longrightarrow 00:58:18.166$ the MRI showed that that

NOTE Confidence: 0.7818672

00:58:18.166 --> 00:58:19.510 a nasty appearing lesion,

 $00:58:19.510 \longrightarrow 00:58:22.198$ and so the question is what to do?

NOTE Confidence: 0.7818672

 $00:58:22.200 \longrightarrow 00:58:24.545$ Should we do surgeries to do radiation?

NOTE Confidence: 0.7818672

 $00:58:24.550 \longrightarrow 00:58:24.886$ Well,

NOTE Confidence: 0.7818672

 $00:58:24.886 \longrightarrow 00:58:26.566$ at this point the patient

NOTE Confidence: 0.7818672

 $00:58:26.566 \longrightarrow 00:58:27.910$ has very serious symptoms.

NOTE Confidence: 0.7818672

00:58:27.910 --> 00:58:29.926 An radiation is not going to

NOTE Confidence: 0.7818672

 $00:58:29.926 \longrightarrow 00:58:31.270$ reverse the vision symptoms.

NOTE Confidence: 0.7818672

 $00:58:31.270 \longrightarrow 00:58:32.227$ In that case,

NOTE Confidence: 0.7818672

 $00:58:32.227 \longrightarrow 00:58:34.460$ it's radiation for meningioma is excellent at

NOTE Confidence: 0.83236545

 $00:58:34.522 \longrightarrow 00:58:36.307$ stopping it from growing further,

NOTE Confidence: 0.83236545

 $00:58:36.310 \longrightarrow 00:58:37.985$ and can sometimes have a

NOTE Confidence: 0.83236545

 $00:58:37.985 \longrightarrow 00:58:39.325$ little shrinkage over time,

NOTE Confidence: 0.83236545

 $00{:}58{:}39.330 \dashrightarrow 00{:}58{:}41.689$ but it can't have a rapid shrinkage,

NOTE Confidence: 0.83236545

 $00{:}58{:}41.690 \dashrightarrow 00{:}58{:}42.695$ can't reverse symptoms

NOTE Confidence: 0.83236545

 $00:58:42.695 \longrightarrow 00:58:44.370$ quickly like she need it,

 $00:58:44.370 \longrightarrow 00:58:47.466$ so surgery was the right call.

NOTE Confidence: 0.83236545

00:58:47.470 --> 00:58:49.504 Thankfully, she met with Doctor Moliterno

NOTE Confidence: 0.83236545

 $00:58:49.504 \longrightarrow 00:58:52.528$ did took out as much as could be respected.

NOTE Confidence: 0.83236545

 $00:58:52.530 \longrightarrow 00:58:54.380$ That's all those very delicate

NOTE Confidence: 0.83236545

 $00:58:54.380 \longrightarrow 00:58:56.620$ structures have to be so careful

NOTE Confidence: 0.83236545

00:58:56.620 --> 00:58:59.148 about as much as taking out as could

NOTE Confidence: 0.83236545

00:58:59.148 --> 00:59:01.710 be turned out to be great one and

NOTE Confidence: 0.83236545

 $00:59:01.710 \longrightarrow 00:59:03.984$ which was great is that her vision

NOTE Confidence: 0.83236545

 $00:59:03.984 \longrightarrow 00:59:05.328$ improved dramatically after surgery.

NOTE Confidence: 0.83236545

00:59:05.330 --> 00:59:08.026 Had a little bit of double vision left,

NOTE Confidence: 0.83236545

 $00{:}59{:}08.030 \dashrightarrow 00{:}59{:}10.292$ but the cutie was excellent and

NOTE Confidence: 0.83236545

 $00:59:10.292 \longrightarrow 00:59:13.398$ moved on to a post offer of MRI.

NOTE Confidence: 0.83236545

 $00:59:13.400 \longrightarrow 00:59:15.188$ And the post off of MRI,

NOTE Confidence: 0.83236545

 $00{:}59{:}15.190 \dashrightarrow 00{:}59{:}17.470$ the pre 8 properties on the left and

NOTE Confidence: 0.83236545

00:59:17.470 --> 00:59:19.680 post office on the right and be easier

NOTE Confidence: 0.83236545

 $00:59:19.680 \longrightarrow 00:59:21.739$ to tell with with multiple slices.

 $00:59:21.740 \longrightarrow 00:59:23.791$ But you get the sense that there's

NOTE Confidence: 0.83236545

 $00{:}59{:}23.791 \dashrightarrow 00{:}59{:}25.379$ a little something left behind

NOTE Confidence: 0.83236545

 $00:59:25.379 \longrightarrow 00:59:27.335$ 'cause we're so close to these

NOTE Confidence: 0.83236545

 $00:59:27.335 \longrightarrow 00:59:28.599$ special arteries and so on,

NOTE Confidence: 0.83236545

 $00:59:28.600 \dashrightarrow 00:59:31.000$ but it's been debunked and it's had a

NOTE Confidence: 0.83236545

 $00:59:31.000 \longrightarrow 00:59:33.067$ huge impact in her quality of life.

NOTE Confidence: 0.83236545

 $00.59:33.070 \longrightarrow 00.59:34.560$ So now radiation comes in.

NOTE Confidence: 0.83236545

 $00:59:34.560 \longrightarrow 00:59:36.348$ How can we help out too?

NOTE Confidence: 0.83236545

 $00:59:36.350 \longrightarrow 00:59:38.174$ Now stabilize this and and take

NOTE Confidence: 0.83236545

 $00:59:38.174 \longrightarrow 00:59:40.517$ it to the next level and so on.

NOTE Confidence: 0.83236545

 $00:59:40.520 \longrightarrow 00:59:42.026$ A very similar process to what

NOTE Confidence: 0.83236545

00:59:42.026 --> 00:59:43.800 I showed in the glioblastoma.

NOTE Confidence: 0.83236545

 $00:59:43.800 \dashrightarrow 00:59:46.418$ There's a modeling process making a mask.

NOTE Confidence: 0.83236545

 $00:59:46.420 \longrightarrow 00:59:49.324$ Creating a CAT scan and MRI who create

NOTE Confidence: 0.83236545

 $00:59:49.324 \longrightarrow 00:59:52.213$ these beams in the center and then we

 $00:59:52.213 \longrightarrow 00:59:54.630$ have ultimately a dose distribution.

NOTE Confidence: 0.83236545

 $00:59:54.630 \longrightarrow 00:59:55.814$ Now we look again.

NOTE Confidence: 0.83236545

 $00:59:55.814 \longrightarrow 00:59:56.998$ This color cloud here.

NOTE Confidence: 0.83236545

 $00:59:57.000 \longrightarrow 00:59:58.475$ Here's what I here's that

NOTE Confidence: 0.83236545

00:59:58.475 --> 00:59:59.655 optic nerve coming back.

NOTE Confidence: 0.83236545

00:59:59.660 --> 01:00:01.502 So we're we're sculpting dose away

NOTE Confidence: 0.83236545

 $01:00:01.502 \longrightarrow 01:00:03.622$ from the brain stem back here and

NOTE Confidence: 0.83236545

01:00:03.622 --> 01:00:05.290 the optic nerve here so again,

NOTE Confidence: 0.83236545

 $01{:}00{:}05.290 \dashrightarrow 01{:}00{:}06.642$ having this concentration of

NOTE Confidence: 0.83236545

01:00:06.642 --> 01:00:08.332 dose where we're most worried

NOTE Confidence: 0.83236545

 $01{:}00{:}08.332 \dashrightarrow 01{:}00{:}10.150$ and then sculpting those away.

NOTE Confidence: 0.83236545

01:00:10.150 --> 01:00:12.688 From the areas that are critical,

NOTE Confidence: 0.83236545

 $01:00:12.690 \longrightarrow 01:00:14.730$ but again an outcome which is

NOTE Confidence: 0.83236545

 $01{:}00{:}14.730 \dashrightarrow 01{:}00{:}16.673$ really only possible with this

NOTE Confidence: 0.83236545

 $01:00:16.673 \longrightarrow 01:00:18.227$ special collaboration between

NOTE Confidence: 0.83236545

 $01:00:18.227 \longrightarrow 01:00:20.299$ you know neurosurgeon radiation,

 $01:00:20.300 \longrightarrow 01:00:23.828$ or in other cases with the

NOTE Confidence: 0.83236545

 $01:00:23.828 \longrightarrow 01:00:25.592$ neurologist as well.

NOTE Confidence: 0.83236545

01:00:25.600 --> 01:00:27.581 I just want to quickly highlight something

NOTE Confidence: 0.83236545

 $01:00:27.581 \longrightarrow 01:00:29.889$ from one of my colleagues size picture

NOTE Confidence: 0.83236545

 $01:00:29.889 \dashrightarrow 01:00:31.995$ earlier Doctor Bindra and Doctor Schiff.

NOTE Confidence: 0.83236545

 $01:00:32.000 \longrightarrow 01:00:34.160$ Just it's nice to see within the L

NOTE Confidence: 0.83236545

 $01:00:34.160 \longrightarrow 01:00:36.104$ system all the things were already

NOTE Confidence: 0.83236545

 $01:00:36.104 \longrightarrow 01:00:38.531$ mentioned and there's just a lot of

NOTE Confidence: 0.83236545

 $01{:}00{:}38.531 \dashrightarrow 01{:}00{:}40.637$ work this homegrown aspect looking at.

NOTE Confidence: 0.83236545

 $01\text{:}00\text{:}40.640 \dashrightarrow 01\text{:}00\text{:}42.418$ How can we use our resources to

NOTE Confidence: 0.83236545

 $01{:}00{:}42.418 \mathrel{--}{>} 01{:}00{:}44.307$ develop new new the rapeutics or not

NOTE Confidence: 0.83236545

 $01:00:44.307 \longrightarrow 01:00:46.092$ only participating in trials that

NOTE Confidence: 0.83236545

 $01:00:46.092 \longrightarrow 01:00:48.320$ other people have design things forward?

NOTE Confidence: 0.83236545

01:00:48.320 --> 01:00:48.944 We're innovating,

NOTE Confidence: 0.83236545

 $01:00:48.944 \longrightarrow 01:00:51.440$ he ran and bring the best for our

 $01:00:51.503 \longrightarrow 01:00:53.183$ patients in this particular trial

NOTE Confidence: 0.83236545

01:00:53.183 --> 01:00:54.863 is for people with a.

NOTE Confidence: 0.83236545

 $01:00:54.870 \longrightarrow 01:00:56.570$ Recurrent type of glioma.

NOTE Confidence: 0.83236545

 $01:00:56.570 \longrightarrow 01:00:59.668$ But it's just wonderful to see this

NOTE Confidence: 0.83236545

 $01:00:59.668 \longrightarrow 01:01:02.464$ this kind of effort and collaboration.

NOTE Confidence: 0.83236545

01:01:02.470 --> 01:01:04.886 And that's it for my portion of time.

NOTE Confidence: 0.83236545

01:01:04.890 --> 01:01:06.708 Thanks so much for including me.

NOTE Confidence: 0.86554575

 $01:01:09.820 \longrightarrow 01:01:12.448$ Thanks so much, Bruce.

NOTE Confidence: 0.86554575

 $01{:}01{:}12.450 \dashrightarrow 01{:}01{:}14.875$ So will hold all questions to the

NOTE Confidence: 0.86554575

01:01:14.875 --> 01:01:17.500 end an our last panelist in our last

NOTE Confidence: 0.86554575

 $01:01:17.500 \longrightarrow 01:01:19.896$ talk is Brian Jenn who is a licensed

NOTE Confidence: 0.86554575

 $01:01:19.896 \longrightarrow 01:01:22.458$ social worker with Smilow as well.

NOTE Confidence: 0.8958651

 $01:01:34.610 \longrightarrow 01:01:36.356$ So thank you for having me.

NOTE Confidence: 0.83947015

01:02:00.110 --> 01:02:01.750 Sorry, a little technical difficulties,

NOTE Confidence: 0.83947015

 $01:02:01.750 \longrightarrow 01:02:04.046$ but here I have my screen here.

NOTE Confidence: 0.8218864

 $01:02:08.950 \longrightarrow 01:02:10.900$ Can you guys hear me OK?

 $01:02:10.900 \longrightarrow 01:02:12.850$ Thank you. OK so I'm Brian.

NOTE Confidence: 0.8218864

 $01:02:12.850 \longrightarrow 01:02:14.475$ I'm one of the clinical

NOTE Confidence: 0.8218864

 $01:02:14.475 \longrightarrow 01:02:15.775$ social workers at Smilow.

NOTE Confidence: 0.8218864

01:02:15.780 --> 01:02:18.148 I work mainly out of the Trumbull office

NOTE Confidence: 0.8218864

 $01:02:18.148 \dashrightarrow 01:02:20.931$ but I also work at the Greenwich Office

NOTE Confidence: 0.8218864

 $01:02:20.931 \longrightarrow 01:02:23.250$ and it's my privilege to work with.

NOTE Confidence: 0.8218864

01:02:23.250 --> 01:02:24.880 Doctor Blunden and Doctor McKibben,

NOTE Confidence: 0.8218864

 $01{:}02{:}24.880 --> 01{:}02{:}27.393$ and my talk is going to be

NOTE Confidence: 0.8218864

01:02:27.393 --> 01:02:28.470 specifically about supporting

NOTE Confidence: 0.8218864

 $01:02:28.538 \longrightarrow 01:02:30.588$ patients and families through this

NOTE Confidence: 0.8218864

 $01{:}02{:}30.588 \dashrightarrow 01{:}02{:}32.998$ process and all the different ways

NOTE Confidence: 0.8218864

 $01:02:32.998 \longrightarrow 01:02:35.014$ we can try to support and help.

NOTE Confidence: 0.8218864

 $01:02:35.020 \longrightarrow 01:02:37.476$ Through this difficult journey,

NOTE Confidence: 0.8218864

 $01:02:37.476 \longrightarrow 01:02:41.160$ so I have no disclosures my.

NOTE Confidence: 0.85245454

 $01:02:46.590 \longrightarrow 01:02:48.620$ My focus will really be on going

 $01:02:48.620 \longrightarrow 01:02:50.415$ through the framework and then practical

NOTE Confidence: 0.85245454

 $01:02:50.415 \longrightarrow 01:02:52.669$ resources and ways that we can support.

NOTE Confidence: 0.85245454

 $01:02:52.670 \longrightarrow 01:02:54.070$ So oftentimes when we're dealing

NOTE Confidence: 0.85245454

 $01:02:54.070 \longrightarrow 01:02:56.010$ with the tumor or cancer diagnosis,

NOTE Confidence: 0.85245454

 $01:02:56.010 \longrightarrow 01:02:58.138$ the question is, how do we cope?

NOTE Confidence: 0.85245454

01:02:58.140 --> 01:02:59.970 How do we get through this?

NOTE Confidence: 0.85245454

01:02:59.970 --> 01:03:02.697 How do we make it a little bit easier,

NOTE Confidence: 0.85245454

01:03:02.700 --> 01:03:04.764 a little bit better and the truth of

NOTE Confidence: 0.85245454

 $01{:}03{:}04.764 \dashrightarrow 01{:}03{:}07.260$ it is it's a really complex question.

NOTE Confidence: 0.85245454

 $01:03:07.260 \longrightarrow 01:03:08.780$ It really depends on who's

NOTE Confidence: 0.85245454

 $01{:}03{:}08.780 \dashrightarrow 01{:}03{:}10.300$ involved in the family system,

NOTE Confidence: 0.85245454

 $01:03:10.300 \longrightarrow 01:03:12.724$ what experiences do they bring to the table?

NOTE Confidence: 0.85245454

 $01:03:12.730 \longrightarrow 01:03:14.430$ What losses or previous diagnosis

NOTE Confidence: 0.85245454

 $01:03:14.430 \longrightarrow 01:03:16.720$ had they gone through as a family?

NOTE Confidence: 0.85245454

01:03:16.720 --> 01:03:20.216 And also where they are at when diognosed,

NOTE Confidence: 0.85245454

 $01:03:20.220 \longrightarrow 01:03:23.049$ it's an incredibly.

01:03:23.050 --> 01:03:25.048 Difficult proposition to sort of bring

NOTE Confidence: 0.85245454

 $01{:}03{:}25.048 \dashrightarrow 01{:}03{:}27.047$ this all together and really address

NOTE Confidence: 0.85245454

01:03:27.047 --> 01:03:29.487 what is most pressing at any given time.

NOTE Confidence: 0.85245454

 $01:03:29.490 \longrightarrow 01:03:31.386$ There's a lot of different processes

NOTE Confidence: 0.85245454

 $01:03:31.386 \longrightarrow 01:03:33.351$ that have to come together to

NOTE Confidence: 0.85245454

 $01:03:33.351 \longrightarrow 01:03:34.635$ shape what coping is,

NOTE Confidence: 0.85245454

 $01:03:34.640 \longrightarrow 01:03:36.566$ so the framework that I use,

NOTE Confidence: 0.85245454

 $01:03:36.570 \longrightarrow 01:03:38.502$ the model that is most helpful

NOTE Confidence: 0.85245454

 $01:03:38.502 \longrightarrow 01:03:39.790$ is family systems illness,

NOTE Confidence: 0.85245454

 $01:03:39.790 \longrightarrow 01:03:42.184$ modeled by John Rowland and I think

NOTE Confidence: 0.85245454

 $01:03:42.184 \longrightarrow 01:03:44.350$ he developed it while he was at

NOTE Confidence: 0.85245454

 $01:03:44.350 \longrightarrow 01:03:46.371$ Yale and then went on to University

NOTE Confidence: 0.85245454

 $01{:}03{:}46.371 \dashrightarrow 01{:}03{:}49.107$ of Chicago and why this is such a

NOTE Confidence: 0.85245454

01:03:49.107 --> 01:03:51.145 useful way of sort of approaching

NOTE Confidence: 0.85245454

 $01:03:51.145 \longrightarrow 01:03:53.160$ a family and an individual who.

01:03:53.160 --> 01:03:55.434 Is suffering through an illness and

NOTE Confidence: 0.85245454

 $01:03:55.434 \longrightarrow 01:03:57.727$ specifically like a cancer diagnosis is

NOTE Confidence: 0.85245454

 $01:03:57.727 \longrightarrow 01:04:00.212$ that it breaks up the dimensions and

NOTE Confidence: 0.85245454

 $01:04:00.212 \longrightarrow 01:04:02.159$ multiple ways and sort of interweaves

NOTE Confidence: 0.85245454

 $01:04:02.159 \longrightarrow 01:04:04.656$ it together so at the center of it

NOTE Confidence: 0.85245454

 $01:04:04.656 \longrightarrow 01:04:06.910$ you have the individual you have the

NOTE Confidence: 0.85245454

 $01:04:06.981 \longrightarrow 01:04:08.856$ individual whose life has changed

NOTE Confidence: 0.85245454

01:04:08.856 --> 01:04:11.482 and has been altered in a significant

NOTE Confidence: 0.85245454

 $01{:}04{:}11.482 \dashrightarrow 01{:}04{:}13.876$ way and then bring that brings with

NOTE Confidence: 0.85245454

01:04:13.876 --> 01:04:15.728 it emotional turmoil at times.

NOTE Confidence: 0.85245454

 $01{:}04{:}15.728 \dashrightarrow 01{:}04{:}17.990$ There's also changes in terms of

NOTE Confidence: 0.85245454

 $01{:}04{:}18.053 \dashrightarrow 01{:}04{:}20.188$ what is a person going to process,

NOTE Confidence: 0.85245454

 $01:04:20.190 \longrightarrow 01:04:22.689$ how are they going to deal with

NOTE Confidence: 0.85245454

 $01:04:22.689 \longrightarrow 01:04:23.760$ their basic needs.

NOTE Confidence: 0.85245454

 $01:04:23.760 \longrightarrow 01:04:25.896$ What are the practical concerns that

NOTE Confidence: 0.85245454

01:04:25.896 --> 01:04:28.746 they have and then it alters every

 $01:04:28.746 \longrightarrow 01:04:30.558$ relationship within their sphere.

NOTE Confidence: 0.85245454

 $01{:}04{:}30.560 \dashrightarrow 01{:}04{:}32.560$ These relationship includes their spouses,

NOTE Confidence: 0.85245454

01:04:32.560 --> 01:04:34.072 their children, their work,

NOTE Confidence: 0.85245454

 $01:04:34.072 \longrightarrow 01:04:35.962$ their friendships and also their

NOTE Confidence: 0.85245454

 $01{:}04{:}35.962 \dashrightarrow 01{:}04{:}37.360$ developing new relationships.

NOTE Confidence: 0.85245454

 $01:04:37.360 \longrightarrow 01:04:40.312$ And the most important one is is with

NOTE Confidence: 0.85245454

01:04:40.312 --> 01:04:42.554 their medical team and developing

NOTE Confidence: 0.85245454

 $01:04:42.554 \longrightarrow 01:04:44.939$ that collaboration to work together

NOTE Confidence: 0.85245454

 $01:04:44.939 \longrightarrow 01:04:47.130$ to achieve a goal together.

NOTE Confidence: 0.85245454

 $01:04:47.130 \longrightarrow 01:04:49.146$ So it also recognizes that each

NOTE Confidence: 0.85245454

 $01:04:49.146 \longrightarrow 01:04:51.230$ stage and phase is different.

NOTE Confidence: 0.85245454

01:04:51.230 --> 01:04:53.834 Often times when I meet with patients,

NOTE Confidence: 0.85245454

 $01{:}04{:}53.840 \dashrightarrow 01{:}04{:}56.948$ it's not. Always when their first diagnosis.

NOTE Confidence: 0.85245454

 $01:04:56.950 \longrightarrow 01:04:58.435$ Sometimes I'm meeting with somebody

NOTE Confidence: 0.85245454

 $01:04:58.435 \longrightarrow 01:05:00.918$ who's in a stage of remission and it

 $01:05:00.918 \longrightarrow 01:05:02.483$ looks very different from somebody

NOTE Confidence: 0.85245454

 $01:05:02.483 \longrightarrow 01:05:04.630$ who is processing a new diagnosis.

NOTE Confidence: 0.85245454

 $01:05:04.630 \longrightarrow 01:05:06.884$ You know you can see this sort

NOTE Confidence: 0.85245454

 $01:05:06.884 \longrightarrow 01:05:08.788$ of onset category that he puts,

NOTE Confidence: 0.85245454

 $01:05:08.790 \longrightarrow 01:05:10.710$ and oftentimes I sit with patients,

NOTE Confidence: 0.85245454

 $01\text{:}05\text{:}10.710 \dashrightarrow 01\text{:}05\text{:}12.754$ and I say it's like being shot

NOTE Confidence: 0.85245454

 $01:05:12.754 \longrightarrow 01:05:14.870$ out of a cannon. It's it's.

NOTE Confidence: 0.85245454

 $01:05:14.870 \longrightarrow 01:05:16.470$ There's no time to prepare.

NOTE Confidence: 0.85245454

 $01:05:16.470 \longrightarrow 01:05:18.070$ It's a shock and surreal.

NOTE Confidence: 0.85245454

 $01:05:18.070 \longrightarrow 01:05:19.385$ And so recognizing what the

NOTE Confidence: 0.85245454

 $01:05:19.385 \longrightarrow 01:05:21.166$ needs are and what the different

NOTE Confidence: 0.85245454

 $01:05:21.166 \longrightarrow 01:05:23.186$ challenges are is vitally important.

NOTE Confidence: 0.85245454

 $01:05:23.190 \longrightarrow 01:05:26.460$ And this does a very good job of sort of.

NOTE Confidence: 0.85245454

 $01:05:26.460 \longrightarrow 01:05:29.106$ Breaking down the challenges that come in

NOTE Confidence: 0.85245454

01:05:29.106 --> 01:05:31.970 each stage when you have a chronic stage,

NOTE Confidence: 0.85245454

01:05:31.970 --> 01:05:34.166 it's it's a place of stability,

 $01:05:34.170 \longrightarrow 01:05:36.378$ but it's different and and that

NOTE Confidence: 0.85245454

01:05:36.378 --> 01:05:38.970 adaption takes a lot of work and

NOTE Confidence: 0.85245454

 $01:05:38.970 \longrightarrow 01:05:41.399$ there still works to process out what

NOTE Confidence: 0.85344154

 $01:05:41.475 \longrightarrow 01:05:42.609$ this looks like.

NOTE Confidence: 0.85344154

 $01:05:42.610 \longrightarrow 01:05:44.440$ How do we find significant

NOTE Confidence: 0.85344154

01:05:44.440 --> 01:05:45.904 meaning during that time?

NOTE Confidence: 0.85344154

 $01:05:45.910 \longrightarrow 01:05:48.106$ And then this is a process

NOTE Confidence: 0.85344154

01:05:48.106 --> 01:05:49.204 of constant adaption,

NOTE Confidence: 0.85344154

 $01:05:49.210 \longrightarrow 01:05:50.314$ so there's transitions.

NOTE Confidence: 0.85344154

01:05:50.314 --> 01:05:51.418 There's new treatments.

NOTE Confidence: 0.85344154

 $01\text{:}05\text{:}51.420 \dashrightarrow 01\text{:}05\text{:}53.616$ There is also endings at times,

NOTE Confidence: 0.85344154

 $01:05:53.620 \longrightarrow 01:05:55.990$ and all these things need to

NOTE Confidence: 0.85344154

 $01{:}05{:}55{.}990 \dashrightarrow 01{:}05{:}57{.}570$ be addressed and supporting.

NOTE Confidence: 0.85344154

01:05:57.570 --> 01:05:59.518 Supporting both the patient

NOTE Confidence: 0.85344154

 $01:05:59.518 \longrightarrow 01:06:01.466$ and the family together.

 $01:06:01.470 \longrightarrow 01:06:03.766$ So in the first crisis Phase I

NOTE Confidence: 0.85344154

 $01:06:03.766 \longrightarrow 01:06:05.946$ wanted to highlight a few of the

NOTE Confidence: 0.85344154

 $01:06:05.946 \longrightarrow 01:06:08.060$ challenges that come up and in the

NOTE Confidence: 0.85344154

01:06:08.060 --> 01:06:10.538 crisis stage phase you have the need

NOTE Confidence: 0.85344154

 $01:06:10.538 \longrightarrow 01:06:12.586$ to understand what was going on.

NOTE Confidence: 0.85344154

01:06:12.586 --> 01:06:15.488 What does it mean in terms of my life?

NOTE Confidence: 0.85344154

 $01:06:15.490 \longrightarrow 01:06:17.604$ What does it mean in terms of

NOTE Confidence: 0.85344154

01:06:17.604 --> 01:06:19.400 the treatment will be receiving?

NOTE Confidence: 0.85344154

01:06:19.400 --> 01:06:22.008 How does affect what I was doing previously?

NOTE Confidence: 0.85344154

01:06:22.010 --> 01:06:24.935 You know, if if you're sending off your kids,

NOTE Confidence: 0.85344154

01:06:24.940 --> 01:06:26.896 your kids off the truck college,

NOTE Confidence: 0.85344154

 $01{:}06{:}26.900 \dashrightarrow 01{:}06{:}29.273$ how does it look to support them

NOTE Confidence: 0.85344154

 $01:06:29.273 \longrightarrow 01:06:31.339$ when they're trying to separate in?

NOTE Confidence: 0.85344154

 $01:06:31.340 \longrightarrow 01:06:33.190$ Differentiate themselves from the family

NOTE Confidence: 0.85344154

 $01:06:33.190 \longrightarrow 01:06:35.819$ family unit at one of the aspects.

NOTE Confidence: 0.85344154

 $01:06:35.820 \longrightarrow 01:06:36.684$ I really like.

 $01:06:36.684 \longrightarrow 01:06:38.700$ A lot is the third one creating

NOTE Confidence: 0.85344154

 $01:06:38.770 \longrightarrow 01:06:40.706$ meaning that promotes family

NOTE Confidence: 0.85344154

01:06:40.706 --> 01:06:42.158 mastering and competency,

NOTE Confidence: 0.85344154

 $01:06:42.160 \longrightarrow 01:06:45.821$ and this is really the narrative that

NOTE Confidence: 0.85344154

 $01:06:45.821 \longrightarrow 01:06:49.166$ patients and individuals come to in terms of.

NOTE Confidence: 0.85344154

 $01:06:49.170 \longrightarrow 01:06:51.627$ How I make sense of this and

NOTE Confidence: 0.85344154

01:06:51.627 --> 01:06:53.560 how I transcend beyond it?

NOTE Confidence: 0.85344154

 $01:06:53.560 \longrightarrow 01:06:55.792$ It is the narrative that incorporate

NOTE Confidence: 0.85344154

 $01:06:55.792 \longrightarrow 01:06:58.149$ family histories of my parents were

NOTE Confidence: 0.85344154

 $01:06:58.149 \longrightarrow 01:07:00.567$ extremely resilient and my dad never

NOTE Confidence: 0.85344154

 $01:07:00.567 \longrightarrow 01:07:03.079$ complained and he always got up for work.

NOTE Confidence: 0.85344154

 $01:07:03.080 \longrightarrow 01:07:05.215$ These are the things we can tap

NOTE Confidence: 0.85344154

01:07:05.215 --> 01:07:07.040 in the inherent straight strength

NOTE Confidence: 0.85344154

 $01:07:07.040 \longrightarrow 01:07:09.150$ of family systems and individuals

NOTE Confidence: 0.85344154

 $01:07:09.150 \longrightarrow 01:07:11.129$ that are that are there.

 $01:07:11.130 \longrightarrow 01:07:13.008$ And also there's a grief process

NOTE Confidence: 0.85344154

01:07:13.008 --> 01:07:15.600 that comes up and grieving for the

NOTE Confidence: 0.85344154

 $01:07:15.600 \longrightarrow 01:07:17.715$ family identity before this disorder.

NOTE Confidence: 0.85344154

 $01:07:17.720 \longrightarrow 01:07:19.412$ Often times I've heard.

NOTE Confidence: 0.85344154

01:07:19.412 --> 01:07:20.258 You know,

NOTE Confidence: 0.85344154

 $01:07:20.260 \longrightarrow 01:07:23.634$ spouses share how they're feeling angry at.

NOTE Confidence: 0.85344154

01:07:23.640 --> 01:07:26.050 Just watching watching another family,

NOTE Confidence: 0.85344154

 $01:07:26.050 \longrightarrow 01:07:29.914$ going to a diner because it's so normal.

NOTE Confidence: 0.85344154

01:07:29.920 --> 01:07:31.369 It's so routine,

NOTE Confidence: 0.85344154

 $01:07:31.369 \longrightarrow 01:07:34.750$ this is something that needs its place.

NOTE Confidence: 0.85344154

 $01:07:34.750 \longrightarrow 01:07:39.088$ It needs time to be fully felt and healed.

NOTE Confidence: 0.85344154

01:07:39.090 --> 01:07:40.686 And of course,

NOTE Confidence: 0.85344154

 $01:07:40.686 \longrightarrow 01:07:43.346$ establishing a relationship with your

NOTE Confidence: 0.85344154

01:07:43.346 --> 01:07:46.435 health care providers and developing

NOTE Confidence: 0.85344154

 $01:07:46.435 \longrightarrow 01:07:49.660$ that trust and collaborative process.

NOTE Confidence: 0.85344154

 $01:07:49.660 \longrightarrow 01:07:50.614$ The chronic phase.

 $01:07:50.614 \longrightarrow 01:07:51.250$ It's a.

NOTE Confidence: 0.85344154

 $01:07:51.250 \longrightarrow 01:07:52.840$ It's a little bit different.

NOTE Confidence: 0.85344154

01:07:52.840 --> 01:07:53.474 You know.

NOTE Confidence: 0.85344154

01:07:53.474 --> 01:07:55.693 It's you found a place of stability,

NOTE Confidence: 0.85344154

01:07:55.700 --> 01:07:56.537 but you know,

NOTE Confidence: 0.85344154

01:07:56.537 --> 01:07:57.653 I've heard patients really

NOTE Confidence: 0.85344154

01:07:57.653 --> 01:07:59.289 describe sort of living with

NOTE Confidence: 0.85344154

 $01:07:59.289 \longrightarrow 01:08:00.789$ anticipatory loss and uncertainty.

NOTE Confidence: 0.85344154

 $01:08:00.790 \longrightarrow 01:08:02.062$ I've had people say,

NOTE Confidence: 0.85344154

 $01{:}08{:}02.062 \dashrightarrow 01{:}08{:}03.970$ you know I've returned to normal.

NOTE Confidence: 0.85344154

 $01:08:03.970 \longrightarrow 01:08:04.906$ It's it's completely.

NOTE Confidence: 0.85344154

 $01:08:04.906 \longrightarrow 01:08:07.470$ I'm baking and gardening and it feels great,

NOTE Confidence: 0.85344154

 $01{:}08{:}07.470 \dashrightarrow 01{:}08{:}09.500$ but at times I feel really insecure

NOTE Confidence: 0.85344154

 $01:08:09.500 \longrightarrow 01:08:11.949$ and it's it's really hard when you

NOTE Confidence: 0.85344154

 $01:08:11.949 \longrightarrow 01:08:13.844$ have those two incongruent emotional

 $01:08:13.844 \longrightarrow 01:08:15.916$ states at one time and making sense

NOTE Confidence: 0.85344154

 $01:08:15.916 \longrightarrow 01:08:18.662$ of that and being open to each place.

NOTE Confidence: 0.85344154

 $01:08:18.662 \longrightarrow 01:08:21.140$ And validating is is tremendous

NOTE Confidence: 0.85344154

 $01:08:21.216 \longrightarrow 01:08:23.760$ Lee difficult to do also within

NOTE Confidence: 0.85344154

 $01:08:23.760 \longrightarrow 01:08:25.032$ the family system?

NOTE Confidence: 0.85344154

01:08:25.040 --> 01:08:26.000 You know,

NOTE Confidence: 0.85344154

 $01:08:26.000 \longrightarrow 01:08:27.920$ developing open communication lines

NOTE Confidence: 0.85344154

 $01:08:27.920 \longrightarrow 01:08:30.308$ really sharing the burden amongst

NOTE Confidence: 0.85344154

 $01{:}08{:}30.308 \dashrightarrow 01{:}08{:}32.660$ the whole family unit and supporting

NOTE Confidence: 0.85344154

 $01:08:32.660 \longrightarrow 01:08:34.860$ each other is a key process.

NOTE Confidence: 0.84469044

 $01{:}08{:}37.100 \dashrightarrow 01{:}08{:}38.828$ And and extending on into grief

NOTE Confidence: 0.84469044

 $01:08:38.828 \longrightarrow 01:08:40.750$ is is sort of acceptance.

NOTE Confidence: 0.84469044

 $01:08:40.750 \longrightarrow 01:08:43.074$ You know, the grief process hasn't stages.

NOTE Confidence: 0.84469044

 $01:08:43.080 \longrightarrow 01:08:45.138$ It has all its difficult emotions

NOTE Confidence: 0.84469044

 $01:08:45.138 \longrightarrow 01:08:47.060$ that can come up and it.

NOTE Confidence: 0.84469044

 $01:08:47.060 \longrightarrow 01:08:48.971$ But one of the things it leads

 $01:08:48.971 \longrightarrow 01:08:51.380$ to is a degree of acceptance.

NOTE Confidence: 0.84469044

 $01:08:51.380 \longrightarrow 01:08:53.040$ A degree of acceptance of

NOTE Confidence: 0.84469044

 $01:08:53.040 \longrightarrow 01:08:54.700$ where the new normal is,

NOTE Confidence: 0.84469044

 $01:08:54.700 \longrightarrow 01:08:55.960$ where people are at,

NOTE Confidence: 0.84469044

 $01{:}08{:}55{.}960 \dashrightarrow 01{:}08{:}58{.}205$ and you know where they can do

NOTE Confidence: 0.84469044

 $01:08:58.205 \longrightarrow 01:09:00.179$ what they can do from there and

NOTE Confidence: 0.84469044

 $01:09:00.179 \longrightarrow 01:09:02.329$ how they can empower themselves.

NOTE Confidence: 0.859428

 $01:09:04.990 \longrightarrow 01:09:07.916$ So there is another stage of transitions.

NOTE Confidence: 0.859428

 $01:09:07.920 \longrightarrow 01:09:10.254$ Anytime there's a change anytime the

NOTE Confidence: 0.859428

 $01:09:10.254 \longrightarrow 01:09:12.785$ family system needs to find equilibrium

NOTE Confidence: 0.859428

 $01{:}09{:}12.785 \dashrightarrow 01{:}09{:}15.045$ needs to redefine hoping goals,

NOTE Confidence: 0.859428

 $01:09:15.050 \longrightarrow 01:09:17.661$ and sometimes that includes an ending phased

NOTE Confidence: 0.859428

 $01{:}09{:}17.661 \dashrightarrow 01{:}09{:}20.679$ in which you know individuals and families

NOTE Confidence: 0.859428

 $01:09:20.679 \longrightarrow 01:09:23.427$ have to identify an unfinished business.

NOTE Confidence: 0.859428

 $01:09:23.430 \longrightarrow 01:09:26.040$ What's really important to accomplish and

01:09:26.040 --> 01:09:28.869 then really maximizing the quality of life,

NOTE Confidence: 0.859428

 $01{:}09{:}28.870 \dashrightarrow 01{:}09{:}31.810$ the meaning, the purpose, and you know,

NOTE Confidence: 0.859428

 $01:09:31.810 \longrightarrow 01:09:35.350$ bringing that time together to its.

NOTE Confidence: 0.859428

 $01{:}09{:}35{.}350 \dashrightarrow 01{:}09{:}37{.}933$ To it, to maximize the goodness that

NOTE Confidence: 0.859428

 $01:09:37.933 \longrightarrow 01:09:40.818$ can come from spending time together.

NOTE Confidence: 0.859428

 $01:09:40.820 \longrightarrow 01:09:43.212$ So this is one of the frameworks that

NOTE Confidence: 0.859428

 $01:09:43.212 \longrightarrow 01:09:45.803$ helps me sort of support patients and

NOTE Confidence: 0.859428

01:09:45.803 --> 01:09:48.639 recognize what is important in a given time,

NOTE Confidence: 0.859428

 $01:09:48.640 \longrightarrow 01:09:51.006$ and it's really excellent in terms of

NOTE Confidence: 0.859428

 $01:09:51.006 \longrightarrow 01:09:53.397$ recognizing the whole picture of the patient.

NOTE Confidence: 0.859428

 $01:09:53.400 \longrightarrow 01:09:54.760$ You know, their history,

NOTE Confidence: 0.859428

01:09:54.760 --> 01:09:55.780 their family history,

NOTE Confidence: 0.859428

 $01:09:55.780 \longrightarrow 01:09:57.140$ the multi generational stories

NOTE Confidence: 0.859428

 $01{:}09{:}57.140 \dashrightarrow 01{:}09{:}59.180$ that are shared among them that

NOTE Confidence: 0.859428

 $01:09:59.235 \longrightarrow 01:10:00.880$ have helped them through this.

NOTE Confidence: 0.859428

 $01:10:00.880 \longrightarrow 01:10:03.128$ And also it's a very positive one in

 $01:10:03.128 \longrightarrow 01:10:05.661$ terms of it's really encourage ING the

NOTE Confidence: 0.859428

 $01:10:05.661 \longrightarrow 01:10:08.340$ family to meet these challenges and for

NOTE Confidence: 0.859428

01:10:08.340 --> 01:10:10.818 something like a brain cancer diagnosis it.

NOTE Confidence: 0.859428

 $01:10:10.820 \longrightarrow 01:10:11.882$ Ripples it did.

NOTE Confidence: 0.859428

 $01:10:11.882 \longrightarrow 01:10:13.298$ The effect extends throughout

NOTE Confidence: 0.859428

01:10:13.298 --> 01:10:14.360 the family system,

NOTE Confidence: 0.859428

01:10:14.360 --> 01:10:15.776 and it's an extraordinarily

NOTE Confidence: 0.859428

 $01:10:15.776 \longrightarrow 01:10:17.546$ hard challenge to meet alone.

NOTE Confidence: 0.859428

01:10:17.550 --> 01:10:20.727 So the fact that you have people around you,

NOTE Confidence: 0.859428

 $01:10:20.730 \longrightarrow 01:10:24.216$ the people that can support you.

NOTE Confidence: 0.859428

 $01:10:24.220 \longrightarrow 01:10:27.356$ It's vital to tap into that reserve.

NOTE Confidence: 0.86585623

 $01:10:29.820 \longrightarrow 01:10:31.955$ And you know this is something that you

NOTE Confidence: 0.86585623

 $01{:}10{:}31.955 \dashrightarrow 01{:}10{:}34.278$ know has been spoken about in terms of

NOTE Confidence: 0.86585623

01:10:34.278 --> 01:10:36.080 maximizing you know why we're fighting

NOTE Confidence: 0.86585623

01:10:36.080 --> 01:10:38.054 and why we're going through this is

 $01:10:38.054 \longrightarrow 01:10:40.608$ that we have to be as a medical team.

NOTE Confidence: 0.86585623

 $01{:}10{:}40.610 \dashrightarrow 01{:}10{:}42.236$ Very mindful of those goals of

NOTE Confidence: 0.86585623

 $01:10:42.236 \longrightarrow 01:10:44.020$ what a good life looks like.

NOTE Confidence: 0.86585623

01:10:44.020 --> 01:10:46.127 You know, I've heard Doctor Blondin mentioned

NOTE Confidence: 0.86585623

01:10:46.127 --> 01:10:48.557 you know such and such is going to wedding.

NOTE Confidence: 0.86585623

 $01:10:48.560 \longrightarrow 01:10:50.712$ I'm going to hold off on the treatment

NOTE Confidence: 0.86585623

01:10:50.712 --> 01:10:52.439 for this week and they're going

NOTE Confidence: 0.86585623

 $01:10:52.439 \longrightarrow 01:10:54.530$ to have fun and that's vital.

NOTE Confidence: 0.86585623

 $01{:}10{:}54.530 \dashrightarrow 01{:}10{:}57.599$ I mean, This is why we go through all

NOTE Confidence: 0.86585623

 $01:10:57.599 \longrightarrow 01:11:00.170$ these hardships is to enjoy life.

NOTE Confidence: 0.86585623

 $01{:}11{:}00.170 \dashrightarrow 01{:}11{:}02.555$ So you know pulling it back to sort of

NOTE Confidence: 0.86585623

01:11:02.555 --> 01:11:05.048 what we do and then in the crisis stage,

NOTE Confidence: 0.86585623

 $01:11:05.050 \longrightarrow 01:11:06.898$ this is often one of the things that

NOTE Confidence: 0.86585623

01:11:06.898 --> 01:11:08.839 we will help support patients with.

NOTE Confidence: 0.86585623

 $01:11:08.840 \longrightarrow 01:11:10.200$ This is the practical service.

NOTE Confidence: 0.86585623

 $01:11:10.200 \longrightarrow 01:11:12.368$ How am I going to pay my bills?

01:11:12.370 --> 01:11:14.530 But you know, can I return to work?

NOTE Confidence: 0.86585623

 $01{:}11{:}14.530 \dashrightarrow 01{:}11{:}16.441$ What are the things that are going

NOTE Confidence: 0.86585623

01:11:16.441 --> 01:11:18.058 to be helpful in this time?

NOTE Confidence: 0.86585623

 $01:11:18.060 \longrightarrow 01:11:19.686$ And these are things that social

NOTE Confidence: 0.86585623

 $01:11:19.686 \longrightarrow 01:11:20.499$ work entail quick.

NOTE Confidence: 0.86585623

 $01:11:20.500 \longrightarrow 01:11:22.257$ There's a number of resources that I

NOTE Confidence: 0.86585623

01:11:22.257 --> 01:11:24.235 will share at the end and turn websites

NOTE Confidence: 0.86585623

01:11:24.235 --> 01:11:26.122 that you can find out more information

NOTE Confidence: 0.86585623

 $01{:}11{:}26.122 \dashrightarrow 01{:}11{:}28.078$ about how to navigate this process.

NOTE Confidence: 0.86585623

01:11:28.080 --> 01:11:29.470 Because you know they didn't

NOTE Confidence: 0.86585623

 $01:11:29.470 \longrightarrow 01:11:30.860$ teach us this in school.

NOTE Confidence: 0.86585623

01:11:30.860 --> 01:11:33.108 This is kind of just thrust upon us,

NOTE Confidence: 0.86585623

 $01:11:33.110 \longrightarrow 01:11:35.560$ and so one of the things that we can try

NOTE Confidence: 0.86585623

01:11:35.622 --> 01:11:37.774 to help with is get you the resources

NOTE Confidence: 0.86585623

 $01:11:37.774 \longrightarrow 01:11:39.847$ of how to apply for disability,

01:11:39.850 --> 01:11:41.656 if that's if that's an option that

NOTE Confidence: 0.86585623

 $01{:}11{:}41.656 \to 01{:}11{:}43.693$ when people want to pursue how to

NOTE Confidence: 0.86585623

01:11:43.693 --> 01:11:44.905 maintain your health insurance,

NOTE Confidence: 0.86585623

 $01:11:44.910 \longrightarrow 01:11:46.877$ maybe you know Medicaid is an option.

NOTE Confidence: 0.86585623

 $01:11:46.880 \longrightarrow 01:11:49.330$ How do we access the.

NOTE Confidence: 0.86585623

01:11:49.330 --> 01:11:49.988 Oh, sorry,

NOTE Confidence: 0.86585623

 $01{:}11{:}49.988 \dashrightarrow 01{:}11{:}51.962$ the market place to find an insurance

NOTE Confidence: 0.86585623

01:11:51.962 --> 01:11:52.620 that fits.

NOTE Confidence: 0.86585623

 $01:11:52.620 \longrightarrow 01:11:55.100$ So all these sort of things that are

NOTE Confidence: 0.86585623

01:11:55.100 --> 01:11:58.210 basic to our well being and living our life.

NOTE Confidence: 0.86585623

 $01{:}11{:}58.210 \dashrightarrow 01{:}11{:}59.860$ We will support people with.

NOTE Confidence: 0.86585623

 $01:11:59.860 \longrightarrow 01:12:02.121$ There was also grants that people can

NOTE Confidence: 0.86585623

 $01:12:02.121 \longrightarrow 01:12:04.459$ access to help out with basic needs.

NOTE Confidence: 0.86585623

01:12:04.460 --> 01:12:06.440 Paying for utilities, maybe a rent,

NOTE Confidence: 0.86585623

 $01:12:06.440 \longrightarrow 01:12:07.740$ maybe a mortgage payment.

NOTE Confidence: 0.86585623

 $01:12:07.740 \longrightarrow 01:12:10.060$ All these sort of things you know,

01:12:10.060 --> 01:12:12.775 laying the foundation to getting

NOTE Confidence: 0.86585623

 $01:12:12.775 \longrightarrow 01:12:14.404$ through this process.

NOTE Confidence: 0.86585623

01:12:14.410 --> 01:12:15.542 The emotional challenges and,

NOTE Confidence: 0.86585623

01:12:15.542 --> 01:12:17.380 you know, one of the things that

NOTE Confidence: 0.86585623

 $01:12:17.380 \longrightarrow 01:12:19.499$ were shared with me so succinctly is,

NOTE Confidence: 0.86585623

 $01{:}12{:}19.500 \dashrightarrow 01{:}12{:}23.000$ you know, a patient said to me.

NOTE Confidence: 0.86585623

 $01:12:23.000 \longrightarrow 01:12:23.933$ It's the brain.

NOTE Confidence: 0.86585623

 $01:12:23.933 \longrightarrow 01:12:26.882$ It's kind of who we are and this was

NOTE Confidence: 0.86585623

 $01{:}12{:}26.882 \dashrightarrow 01{:}12{:}29.311$ into in regards to the terror that

NOTE Confidence: 0.86585623

 $01:12:29.311 \longrightarrow 01:12:31.839$ they felt in terms of the changes.

NOTE Confidence: 0.86585623

 $01:12:31.840 \longrightarrow 01:12:33.208$ The fear of loss.

NOTE Confidence: 0.86585623

01:12:33.208 --> 01:12:35.919 I have had a individual share with me,

NOTE Confidence: 0.86585623

 $01{:}12{:}35.920 \dashrightarrow 01{:}12{:}37.600$ recognizing that she had lost

NOTE Confidence: 0.86585623

 $01:12:37.600 \longrightarrow 01:12:39.660$ the ability to sign her name,

NOTE Confidence: 0.86585623

01:12:39.660 --> 01:12:40.340 her signature,

 $01:12:40.340 \longrightarrow 01:12:42.040$ and that's so fundamentally us.

NOTE Confidence: 0.86585623

 $01:12:42.040 \longrightarrow 01:12:44.384$ And so this is a very unique challenge

NOTE Confidence: 0.86585623

 $01:12:44.384 \longrightarrow 01:12:46.712$ to brain brain tumors and brain cancers

NOTE Confidence: 0.86585623

 $01:12:46.712 \longrightarrow 01:12:49.520$ that it's really how we define ourselves.

NOTE Confidence: 0.86585623

01:12:49.520 --> 01:12:50.880 It's it's our function.

NOTE Confidence: 0.86585623

01:12:50.880 --> 01:12:51.900 It's our balance,

NOTE Confidence: 0.86585623

01:12:51.900 --> 01:12:52.998 it's our eyesight.

NOTE Confidence: 0.86585623

01:12:52.998 --> 01:12:54.096 It's driving it.

NOTE Confidence: 0.86585623

01:12:54.100 --> 01:12:54.408 Independence,

NOTE Confidence: 0.86585623

 $01:12:54.408 \longrightarrow 01:12:57.534$ and this is a profound in terms of how it

NOTE Confidence: 0.86585623

 $01:12:57.534 \longrightarrow 01:13:00.099$ affects our life and how it shapes our lives.

NOTE Confidence: 0.86585623

01:13:00.100 --> 01:13:02.500 So often times when I'm sitting with people,

NOTE Confidence: 0.86585623

 $01:13:02.500 \longrightarrow 01:13:03.700$ there's two different processes

NOTE Confidence: 0.86585623

 $01:13:03.700 \longrightarrow 01:13:05.500$ that I sort of flesh out

NOTE Confidence: 0.85824853

 $01:13:05.563 \longrightarrow 01:13:07.804$ with them, and one is a degree of

NOTE Confidence: 0.85824853

 $01:13:07.804 \longrightarrow 01:13:09.699$ trauma that it's going to trigger.

01:13:09.700 --> 01:13:11.200 Our anxiety are survival mechanisms,

NOTE Confidence: 0.85824853

 $01:13:11.200 \longrightarrow 01:13:12.400$ I tell family members.

NOTE Confidence: 0.85824853

01:13:12.400 --> 01:13:14.200 And when I first meet them,

NOTE Confidence: 0.85824853

 $01:13:14.200 \longrightarrow 01:13:16.216$ are you a little more irritable with

NOTE Confidence: 0.85824853

01:13:16.216 --> 01:13:18.099 each other and they're like yes,

NOTE Confidence: 0.85824853

01:13:18.100 --> 01:13:20.060 and it's that's normal because it's part

NOTE Confidence: 0.85824853

01:13:20.060 --> 01:13:22.300 of our flight fight or flight mechanism.

NOTE Confidence: 0.85824853

 $01:13:22.300 \longrightarrow 01:13:24.250$ And then knowing that and being.

NOTE Confidence: 0.85824853

 $01{:}13{:}24.250 \dashrightarrow 01{:}13{:}25.900$ Cognizant of that you know helps

NOTE Confidence: 0.85824853

 $01:13:25.900 \longrightarrow 01:13:28.281$ us sort of be a little bit more

NOTE Confidence: 0.85824853

01:13:28.281 --> 01:13:30.111 gentle to ourselves that you know

NOTE Confidence: 0.85824853

 $01:13:30.170 \longrightarrow 01:13:32.389$ that we recognize we're a little bit

NOTE Confidence: 0.85824853

 $01{:}13{:}32.389 \dashrightarrow 01{:}13{:}34.174$ under stress and this is natural.

NOTE Confidence: 0.85824853

01:13:34.174 --> 01:13:35.842 Alot of my job is normalizing

NOTE Confidence: 0.85824853

 $01:13:35.842 \longrightarrow 01:13:37.651$ these emotions that it feels so

01:13:37.651 --> 01:13:39.522 intense in the very beginning and

NOTE Confidence: 0.85824853

 $01:13:39.522 \longrightarrow 01:13:41.217$ then giving tools like meditation,

NOTE Confidence: 0.85824853

01:13:41.220 --> 01:13:43.947 prayer in itself is a way of staying present,

NOTE Confidence: 0.85824853

 $01:13:43.950 \longrightarrow 01:13:44.542$ you know,

NOTE Confidence: 0.85824853

 $01:13:44.542 \longrightarrow 01:13:46.022$ and having people access the

NOTE Confidence: 0.85824853

 $01:13:46.022 \longrightarrow 01:13:47.880$ things that make them feel better.

NOTE Confidence: 0.85824853

 $01{:}13{:}47.880 \dashrightarrow 01{:}13{:}49.320$ The other emotional process that

NOTE Confidence: 0.85824853

01:13:49.320 --> 01:13:52.071 I tend to see is a grief one and

NOTE Confidence: 0.85824853

 $01{:}13{:}52.071 \dashrightarrow 01{:}13{:}53.636$ that comes with any limitations.

NOTE Confidence: 0.85824853

 $01:13:53.640 \longrightarrow 01:13:55.596$ Anytime we have obstacle or wall.

NOTE Confidence: 0.85824853

 $01:13:55.600 \longrightarrow 01:13:57.721$ We triggered the grief process and that

NOTE Confidence: 0.85824853

01:13:57.721 --> 01:14:00.066 grief process can roll into all past losses,

NOTE Confidence: 0.85824853

 $01:14:00.070 \longrightarrow 01:14:02.023$ and so this is when I often times

NOTE Confidence: 0.85824853

 $01:14:02.023 \longrightarrow 01:14:03.554$ they really identify and really

NOTE Confidence: 0.85824853

 $01:14:03.554 \longrightarrow 01:14:05.134$ stress because it's not linear.

NOTE Confidence: 0.85824853

 $01:14:05.140 \longrightarrow 01:14:06.916$ It's not even logical at times,

01:14:06.920 --> 01:14:09.208 but it's just the power of those emotions

NOTE Confidence: 0.85824853

 $01:14:09.208 \longrightarrow 01:14:11.690$ in the expression that need to be had.

NOTE Confidence: 0.85824853

01:14:11.690 --> 01:14:13.776 And healing grief is just very simple.

NOTE Confidence: 0.85824853

 $01:14:13.780 \longrightarrow 01:14:16.120$ It's feeling the emotions and then

NOTE Confidence: 0.85824853

01:14:16.120 --> 01:14:18.113 reconnecting life and the good

NOTE Confidence: 0.85824853

01:14:18.113 --> 01:14:20.285 ways that really pull you through.

NOTE Confidence: 0.85824853

 $01:14:20.290 \longrightarrow 01:14:23.174$ So I also want to address the

NOTE Confidence: 0.85824853

01:14:23.174 --> 01:14:23.998 caregivers because.

NOTE Confidence: 0.85824853

 $01:14:24.000 \longrightarrow 01:14:26.779$ Their job is is vital and these

NOTE Confidence: 0.85824853

 $01:14:26.779 \longrightarrow 01:14:29.330$ are things that I always share.

NOTE Confidence: 0.85824853

 $01:14:29.330 \longrightarrow 01:14:30.490$ You're doing a superb,

NOTE Confidence: 0.85824853

01:14:30.490 --> 01:14:32.730 wonderful job caring for the people you love,

NOTE Confidence: 0.85824853

01:14:32.730 --> 01:14:34.704 and oftentimes it doesn't feel that way.

NOTE Confidence: 0.85824853

 $01:14:34.710 \longrightarrow 01:14:36.966$ And the problem is, the game is rigged.

NOTE Confidence: 0.85824853

 $01:14:36.970 \longrightarrow 01:14:38.315$ You're you're balancing two moral

01:14:38.315 --> 01:14:40.080 virtues together of caring for yourself,

NOTE Confidence: 0.85824853

01:14:40.080 --> 01:14:41.778 caring for the person you love,

NOTE Confidence: 0.85824853

 $01:14:41.780 \longrightarrow 01:14:44.044$ and there's never enough hours in the day.

NOTE Confidence: 0.85824853

01:14:44.050 --> 01:14:46.024 So I just want to tell you,

NOTE Confidence: 0.85824853

01:14:46.030 --> 01:14:48.286 doing a superb job and a wonderful job,

NOTE Confidence: 0.85824853

 $01:14:48.290 \longrightarrow 01:14:50.089$ the other part of that is that

NOTE Confidence: 0.85824853

 $01:14:50.089 \longrightarrow 01:14:52.250$ guilt is a school for self care.

NOTE Confidence: 0.85824853

01:14:52.250 --> 01:14:54.236 So if you're feeling guilty that

NOTE Confidence: 0.85824853

 $01:14:54.236 \longrightarrow 01:14:56.224$ you can't do something and you're

NOTE Confidence: 0.85824853

 $01:14:56.224 \longrightarrow 01:14:57.729$ just a little bit tired.

NOTE Confidence: 0.85824853

01:14:57.730 --> 01:14:59.250 It's really your body saying

NOTE Confidence: 0.85824853

01:14:59.250 --> 01:15:01.370 I want to and I'm willing,

NOTE Confidence: 0.85824853

 $01{:}15{:}01.370 \dashrightarrow 01{:}15{:}04.687$ but I I need to take care of this so it's

NOTE Confidence: 0.85824853

 $01:15:04.687 \longrightarrow 01:15:07.655$ OK to care for yourself to slow down.

NOTE Confidence: 0.85824853

01:15:07.660 --> 01:15:08.539 Take a time,

NOTE Confidence: 0.85824853

 $01:15:08.539 \longrightarrow 01:15:10.953$ take a time to walk and maybe go

 $01:15:10.953 \longrightarrow 01:15:13.241$ to a movie or talk to a friend

NOTE Confidence: 0.85824853

 $01:15:13.241 \longrightarrow 01:15:15.594$ because you're self care is modeling

NOTE Confidence: 0.85824853

01:15:15.594 --> 01:15:17.921 within your family system of how

NOTE Confidence: 0.85824853

 $01:15:17.921 \longrightarrow 01:15:19.576$ to prioritize your well being.

NOTE Confidence: 0.85824853

 $01{:}15{:}19.580 \dashrightarrow 01{:}15{:}21.560$ How to nurture yourself and if

NOTE Confidence: 0.85824853

01:15:21.560 --> 01:15:23.600 that energy get gets rippled out

NOTE Confidence: 0.85824853

 $01:15:23.600 \longrightarrow 01:15:25.868$ to all the people in your family.

NOTE Confidence: 0.8848299

 $01:15:28.330 \longrightarrow 01:15:32.768$ So just in terms of ending the.

NOTE Confidence: 0.8848299

01:15:32.770 --> 01:15:34.856 The talk I really wanted to address,

NOTE Confidence: 0.8848299

 $01:15:34.860 \longrightarrow 01:15:36.939$ sort of the unsung gifts of cancer,

NOTE Confidence: 0.8848299

 $01:15:36.940 \longrightarrow 01:15:38.220$ and this is science.

NOTE Confidence: 0.8848299

 $01:15:38.220 \longrightarrow 01:15:40.140$ Certain things that have been shared

NOTE Confidence: 0.8848299

 $01:15:40.201 \longrightarrow 01:15:42.084$ with me that have really made an

NOTE Confidence: 0.8848299

 $01:15:42.084 \longrightarrow 01:15:44.124$ impact in terms of the wisdom that

NOTE Confidence: 0.8848299

 $01:15:44.124 \longrightarrow 01:15:45.876$ can come from a cancer diagnosis.

01:15:45.880 --> 01:15:47.668 The fact that individuals will share,

NOTE Confidence: 0.8848299

01:15:47.670 --> 01:15:48.746 like you know, I,

NOTE Confidence: 0.8848299

01:15:48.746 --> 01:15:51.286 I quit my job and it was the best

NOTE Confidence: 0.8848299

 $01:15:51.286 \longrightarrow 01:15:53.998$ thing I ever done did in my life and

NOTE Confidence: 0.8848299

01:15:53.998 --> 01:15:56.280 I really prospered in in terms of

NOTE Confidence: 0.8848299

 $01:15:56.280 \longrightarrow 01:15:58.339$ the things I loved and that sort of

NOTE Confidence: 0.8848299

 $01:15:58.339 \longrightarrow 01:16:00.496$ being true to their authentic self and

NOTE Confidence: 0.8848299

 $01:16:00.496 \longrightarrow 01:16:02.870$ listening to what's most important to them.

NOTE Confidence: 0.8848299

 $01:16:02.870 \longrightarrow 01:16:04.258$ There's a real clarity

NOTE Confidence: 0.8848299

 $01:16:04.258 \longrightarrow 01:16:05.993$ that comes from a really.

NOTE Confidence: 0.8848299

 $01{:}16{:}06.000 \dashrightarrow 01{:}16{:}09.936$ Major diagnosis like this and also the fact

NOTE Confidence: 0.8848299

 $01{:}16{:}09.936 \dashrightarrow 01{:}16{:}14.137$ that our attitude is profoundly important.

NOTE Confidence: 0.8848299

 $01:16:14.140 \longrightarrow 01:16:17.176$ So we're not diminishing the emotional

NOTE Confidence: 0.8848299

 $01:16:17.176 \longrightarrow 01:16:20.524$ impact in the difficulties that arise, but.

NOTE Confidence: 0.8848299

 $01:16:20.524 \longrightarrow 01:16:23.212$ We have the capacity sort of transcending

NOTE Confidence: 0.8848299

01:16:23.212 --> 01:16:25.218 those difficulties and those obstacles,

01:16:25.220 --> 01:16:27.820 and that's one of the things that you

NOTE Confidence: 0.8848299

 $01:16:27.820 \longrightarrow 01:16:30.139$ know social work wants to help with.

NOTE Confidence: 0.8848299

 $01:16:30.140 \longrightarrow 01:16:32.654$ Counseling can help with our spiritual

NOTE Confidence: 0.8848299

01:16:32.654 --> 01:16:35.334 practice can help with and to really

NOTE Confidence: 0.8848299

 $01:16:35.334 \longrightarrow 01:16:37.997$ tap into that as a resource and a

NOTE Confidence: 0.8848299

01:16:37.997 --> 01:16:40.117 tool to getting through difficulty.

NOTE Confidence: 0.8848299

 $01:16:40.120 \longrightarrow 01:16:42.560$ So I'm going to run through a number

NOTE Confidence: 0.8848299

 $01:16:42.560 \longrightarrow 01:16:44.358$ of resources we have at smilow.

NOTE Confidence: 0.8848299

01:16:44.360 --> 01:16:44.966 Most importantly,

NOTE Confidence: 0.8848299

01:16:44.966 --> 01:16:47.087 we have the brain tumor Support Group,

NOTE Confidence: 0.8848299

 $01:16:47.090 \longrightarrow 01:16:49.204$ which is up and running through Stephanie.

NOTE Confidence: 0.8848299

 $01{:}16{:}49.210 \dashrightarrow 01{:}16{:}51.149$ I saw that mentioned in the chat

NOTE Confidence: 0.8848299

01:16:51.149 --> 01:16:52.540 and I I really,

NOTE Confidence: 0.8848299

 $01:16:52.540 \longrightarrow 01:16:53.768$ highly recommend support groups.

NOTE Confidence: 0.8848299

 $01:16:53.768 \longrightarrow 01:16:55.933$ It's a great way to breakdown feelings

 $01:16:55.933 \longrightarrow 01:16:58.109$ of isolation to give mutual aid to help

NOTE Confidence: 0.8848299

 $01:16:58.109 \longrightarrow 01:17:00.116$ people to get other people's perspective.

NOTE Confidence: 0.8848299

 $01:17:00.120 \longrightarrow 01:17:01.332$ It's a beautiful thing.

NOTE Confidence: 0.8848299

01:17:01.332 --> 01:17:02.847 There's great sense of humor,

NOTE Confidence: 0.8848299

 $01:17:02.850 \longrightarrow 01:17:04.360$ it's it's a wonderful thing.

NOTE Confidence: 0.8848299

01:17:04.360 --> 01:17:05.875 There's also a caregiver support

NOTE Confidence: 0.8848299

01:17:05.875 --> 01:17:07.390 group that's in the evening,

NOTE Confidence: 0.8848299

 $01:17:07.390 \longrightarrow 01:17:10.374$ so it's a little bit easier for caregivers.

NOTE Confidence: 0.8848299

 $01:17:10.380 \longrightarrow 01:17:13.140$ To try to attend and these are all

NOTE Confidence: 0.8848299

01:17:13.140 --> 01:17:15.886 by Zoom who's who's run by Mary.

NOTE Confidence: 0.8848299

 $01{:}17{:}15.890 \dashrightarrow 01{:}17{:}17.590$ There's also a meaning centered

NOTE Confidence: 0.8848299

 $01:17:17.590 \longrightarrow 01:17:19.290$ psychotherapy group and that was

NOTE Confidence: 0.8848299

 $01:17:19.347 \longrightarrow 01:17:21.675$ developer cancer patient and some very

NOTE Confidence: 0.8848299

 $01:17:21.675 \longrightarrow 01:17:23.227$ structured Psycho Ed intervention.

NOTE Confidence: 0.8848299

01:17:23.230 --> 01:17:25.492 And that's really to address sort

NOTE Confidence: 0.8848299

01:17:25.492 --> 01:17:28.450 of that feeling of how do I find

01:17:28.450 --> 01:17:29.826 my purpose through this?

NOTE Confidence: 0.8848299

 $01:17:29.830 \longrightarrow 01:17:32.766$ What is my my new life look like?

NOTE Confidence: 0.8848299

01:17:32.770 --> 01:17:34.948 And it's done through seven week

NOTE Confidence: 0.8848299

 $01:17:34.948 \longrightarrow 01:17:37.170$ individual sessions and eight week groups.

NOTE Confidence: 0.8848299

 $01:17:37.170 \longrightarrow 01:17:39.010$ That palliative care has it.

NOTE Confidence: 0.8848299

 $01:17:39.010 \longrightarrow 01:17:42.066$ There's a number of social workers that are.

NOTE Confidence: 0.8848299

01:17:42.070 --> 01:17:42.847 Trained in it,

NOTE Confidence: 0.8848299

 $01{:}17{:}42.847 \dashrightarrow 01{:}17{:}45.003$ and so you can just ask your team

NOTE Confidence: 0.8848299

 $01:17:45.003 \longrightarrow 01:17:46.659$ and they can do a referral.

NOTE Confidence: 0.8848299

01:17:46.660 --> 01:17:48.785 We have nutrition as Doctor

NOTE Confidence: 0.8848299

 $01:17:48.785 \longrightarrow 01:17:49.635$ Blunden mentioned.

NOTE Confidence: 0.8848299

 $01{:}17{:}49.640 \dashrightarrow 01{:}17{:}52.615$ We have integrated medicine who

NOTE Confidence: 0.8848299

 $01{:}17{:}52.615 \dashrightarrow 01{:}17{:}54.995$ have wonderful guided meditations.

NOTE Confidence: 0.8848299

01:17:55.000 --> 01:17:57.220 The Covid we did have massage

NOTE Confidence: 0.8848299

01:17:57.220 --> 01:17:58.330 therapy at times,

 $01:17:58.330 \longrightarrow 01:18:00.490$ and different classes that you can

NOTE Confidence: 0.8848299

 $01{:}18{:}00.490 \dashrightarrow 01{:}18{:}02.770$ attend in person like Gentle Yoga.

NOTE Confidence: 0.8848299

 $01:18:02.770 \longrightarrow 01:18:04.990$ They're doing a little more remote.

NOTE Confidence: 0.8848299

 $01:18:04.990 \longrightarrow 01:18:06.840$ There is also art therapy.

NOTE Confidence: 0.8848299

 $01:18:06.840 \longrightarrow 01:18:09.430$ We also have a referral to pack,

NOTE Confidence: 0.8848299

01:18:09.430 --> 01:18:12.020 which is parenting at a challenging time.

NOTE Confidence: 0.8848299

01:18:12.020 --> 01:18:12.656 You know,

NOTE Confidence: 0.8848299

01:18:12.656 --> 01:18:14.564 for individuals with children of any

NOTE Confidence: 0.8848299

 $01:18:14.564 \longrightarrow 01:18:17.568$ age we have a module that helps people

NOTE Confidence: 0.8848299

01:18:17.568 --> 01:18:19.104 figure out communication tenants

NOTE Confidence: 0.8848299

 $01{:}18{:}19.168 \dashrightarrow 01{:}18{:}21.268$ how to maintain open communication,

NOTE Confidence: 0.8848299

 $01:18:21.270 \longrightarrow 01:18:24.214$ what emotions to sort of look for and

NOTE Confidence: 0.8848299

 $01:18:24.214 \longrightarrow 01:18:27.087$ describe and reach for in their children.

NOTE Confidence: 0.86480135

 $01{:}18{:}27.090 \dashrightarrow 01{:}18{:}29.274$ And just sort of just ways of creating

NOTE Confidence: 0.86480135

01:18:29.274 --> 01:18:31.627 a a normal structure to support

NOTE Confidence: 0.86480135

 $01:18:31.627 \longrightarrow 01:18:33.797$ people through a difficult time.

 $01:18:33.800 \longrightarrow 01:18:35.208$ Also palliative care is

NOTE Confidence: 0.86480135

 $01:18:35.208 \longrightarrow 01:18:36.264$ another wonderful referral.

NOTE Confidence: 0.86480135

 $01:18:36.270 \longrightarrow 01:18:38.405$ They have a holistic practice

NOTE Confidence: 0.86480135

 $01:18:38.405 \longrightarrow 01:18:41.526$ and they have a very large team

NOTE Confidence: 0.86480135

01:18:41.526 --> 01:18:44.214 that people can have access to.

NOTE Confidence: 0.86480135

01:18:44.220 --> 01:18:45.306 Community resources,

NOTE Confidence: 0.86480135

01:18:45.306 --> 01:18:48.564 so the connected Brain Tumor Alliance

NOTE Confidence: 0.86480135

 $01:18:48.564 \longrightarrow 01:18:50.851$ education advocacy they have they

NOTE Confidence: 0.86480135

 $01{:}18{:}50.851 \dashrightarrow 01{:}18{:}53.107$ they have support groups as well.

NOTE Confidence: 0.86480135

01:18:53.110 --> 01:18:55.445 There's An's place who have

NOTE Confidence: 0.86480135

 $01{:}18{:}55.445 \dashrightarrow 01{:}18{:}57.313$ individual and group counseling.

NOTE Confidence: 0.86480135

01:18:57.320 --> 01:19:01.532 Cancer Care has online kids hugs is for kids,

NOTE Confidence: 0.86480135

 $01:19:01.540 \longrightarrow 01:19:03.260$ parents and their children.

NOTE Confidence: 0.86480135

 $01{:}19{:}03.260 \dashrightarrow 01{:}19{:}05.840$ The American Cancer Society has a

NOTE Confidence: 0.86480135

 $01:19:05.914 \longrightarrow 01:19:07.918$ number of information transportation

 $01:19:07.918 \longrightarrow 01:19:10.423$ they did have before covid.

NOTE Confidence: 0.86480135

 $01:19:10.430 \longrightarrow 01:19:13.040$ And then there's a number of

NOTE Confidence: 0.86480135

 $01:19:13.040 \longrightarrow 01:19:15.580$ other ones cancer in careers,

NOTE Confidence: 0.86480135

 $01:19:15.580 \longrightarrow 01:19:16.428$ triage, cancers.

NOTE Confidence: 0.86480135

01:19:16.428 --> 01:19:18.548 Which helps with employment and

NOTE Confidence: 0.86480135

01:19:18.548 --> 01:19:20.849 legal support and then of course,

NOTE Confidence: 0.86480135

 $01:19:20.850 \longrightarrow 01:19:22.660$ financial grants to help people

NOTE Confidence: 0.86480135

01:19:22.660 --> 01:19:24.470 meet needs during their treatment.

NOTE Confidence: 0.86480135

01:19:24.470 --> 01:19:25.914 There's a cancer Connecticut

NOTE Confidence: 0.86480135

01:19:25.914 --> 01:19:26.636 Cancer Foundation,

NOTE Confidence: 0.86480135

 $01:19:26.640 \longrightarrow 01:19:28.890$ Lovemark Foundation and cancer care and

NOTE Confidence: 0.86480135

 $01{:}19{:}28.890 \dashrightarrow 01{:}19{:}31.707$ then this is just the one last slide.

NOTE Confidence: 0.86480135

 $01:19:31.710 \longrightarrow 01:19:33.594$ It is long term care options

NOTE Confidence: 0.86480135

 $01:19:33.594 \longrightarrow 01:19:35.690$ through the state of Connecticut.

NOTE Confidence: 0.86480135

 $01:19:35.690 \longrightarrow 01:19:36.776$ Sometimes when individuals

NOTE Confidence: 0.86480135

01:19:36.776 --> 01:19:38.586 need extra support at home.

 $01:19:38.590 \longrightarrow 01:19:41.117$ These are the programs that are available.

NOTE Confidence: 0.86480135

 $01{:}19{:}41.120 \dashrightarrow 01{:}19{:}44.054$ The one thing I wanted to point out was

NOTE Confidence: 0.86480135

01:19:44.054 --> 01:19:46.744 that if if people under under age 64

NOTE Confidence: 0.86480135

 $01:19:46.744 \longrightarrow 01:19:49.658$ there is not a lot of great resources,

NOTE Confidence: 0.86480135

 $01:19:49.660 \longrightarrow 01:19:52.530$ the wait list for that is four to five years.

NOTE Confidence: 0.86480135

 $01:19:52.530 \longrightarrow 01:19:54.150$ So if anyone is interested in

NOTE Confidence: 0.86480135

01:19:54.150 --> 01:19:55.588 talking about in finding more

NOTE Confidence: 0.86480135

 $01:19:55.588 \longrightarrow 01:19:57.128$ information they can contact me.

NOTE Confidence: 0.86480135

01:19:57.130 --> 01:19:58.719 And also I would also recommend if

NOTE Confidence: 0.86480135

 $01:19:58.719 \longrightarrow 01:20:00.493$ we could call your representative and

NOTE Confidence: 0.86480135

 $01:20:00.493 \longrightarrow 01:20:02.575$ advocate that that's kind of unacceptable.

NOTE Confidence: 0.86480135

 $01:20:02.580 \longrightarrow 01:20:04.260$ If that if people need help

NOTE Confidence: 0.86480135

 $01:20:04.260 \longrightarrow 01:20:05.740$ that we should have that.

NOTE Confidence: 0.86480135

01:20:05.740 --> 01:20:08.130 So I want to thank you and I had to

NOTE Confidence: 0.86480135

 $01:20:08.200 \longrightarrow 01:20:10.600$ give a special thank you to my wife

01:20:10.600 --> 01:20:13.117 who kept the house is quiet as I've

NOTE Confidence: 0.86480135

 $01:20:13.117 \longrightarrow 01:20:15.510$ ever heard it with our three little boys.

NOTE Confidence: 0.86480135

 $01:20:15.510 \longrightarrow 01:20:18.359$ So it was a little leery for a little bit,

NOTE Confidence: 0.86480135

 $01:20:18.360 \longrightarrow 01:20:20.088$ but thank you for the time.

NOTE Confidence: 0.8691634

 $01:20:23.540 \longrightarrow 01:20:25.230$ Thank you so much, Brian.

NOTE Confidence: 0.8691634

 $01:20:25.230 \longrightarrow 01:20:28.560$ I know I have my almost 6 year old son who

NOTE Confidence: 0.8691634

 $01:20:28.560 \longrightarrow 01:20:31.530$ I know is gonna race in here any minute

NOTE Confidence: 0.8691634

 $01{:}20{:}31.614 \dashrightarrow 01{:}20{:}34.686$ so I can feel the stress and understand.

NOTE Confidence: 0.8691634

 $01:20:34.690 \longrightarrow 01:20:37.732$ But that was a really beautiful talk and Ann.

NOTE Confidence: 0.8691634

01:20:37.740 --> 01:20:39.576 Thank you so much for summarizing

NOTE Confidence: 0.8691634

 $01:20:39.576 \longrightarrow 01:20:41.450$ all of those those resources.

NOTE Confidence: 0.8691634

01:20:41.450 --> 01:20:42.464 That's incredibly helpful,

NOTE Confidence: 0.8691634

 $01:20:42.464 \longrightarrow 01:20:43.816$ so really appreciate that.

NOTE Confidence: 0.8691634

01:20:43.820 --> 01:20:45.906 And yeah, Jillian had mentioned in the

NOTE Confidence: 0.8691634

01:20:45.906 --> 01:20:48.653 chat and of course you mentioned the brain

NOTE Confidence: 0.8691634

 $01:20:48.653 \longrightarrow 01:20:50.920$ Tumor Support Group is really useful.

 $01:20:50.920 \longrightarrow 01:20:51.754$ Really helpful.

NOTE Confidence: 0.8691634

01:20:51.754 --> 01:20:55.090 And now you know is occurring through zoom.

NOTE Confidence: 0.8691634

 $01:20:55.090 \longrightarrow 01:20:57.556$ So we can have all of our patients and

NOTE Confidence: 0.8691634

01:20:57.556 --> 01:21:00.058 and really very remotely participate,

NOTE Confidence: 0.8691634

 $01:21:00.060 \longrightarrow 01:21:03.168$ and that's open to everyone in anyone.

NOTE Confidence: 0.8691634

 $01:21:03.170 \longrightarrow 01:21:06.032$ So I think what we can now do in

NOTE Confidence: 0.8691634

 $01:21:06.032 \longrightarrow 01:21:08.690$ the interest of time and children

NOTE Confidence: 0.8691634

 $01:21:08.690 \longrightarrow 01:21:11.300$ who are going to lose it.

NOTE Confidence: 0.8691634

01:21:11.300 --> 01:21:12.140 An adults.

NOTE Confidence: 0.8691634

 $01:21:12.140 \longrightarrow 01:21:15.080$ Perhaps we can switch to some questions

NOTE Confidence: 0.8691634

 $01:21:15.080 \longrightarrow 01:21:17.877$ so we have some in the chat box.

NOTE Confidence: 0.84093803

01:21:21.060 --> 01:21:22.818 I'm never very good at.

NOTE Confidence: 0.84093803

 $01{:}21{:}22.818 \dashrightarrow 01{:}21{:}25.990$ And so I'll start at the beginning.

NOTE Confidence: 0.84093803

 $01:21:25.990 \longrightarrow 01:21:28.524$ Yes, it is possible to get the

NOTE Confidence: 0.84093803

 $01:21:28.524 \longrightarrow 01:21:31.408$ recording of this session and Renee had

01:21:31.408 --> 01:21:33.988 already provided the link for that.

NOTE Confidence: 0.84093803

 $01:21:33.990 \longrightarrow 01:21:37.590$ It will be posted in the next few days.

NOTE Confidence: 0.84093803

 $01:21:37.590 \longrightarrow 01:21:42.720$ I believe she said. Uhm?

NOTE Confidence: 0.84093803

 $01:21:42.720 \longrightarrow 01:21:44.340$ Yep, so she has that.

NOTE Confidence: 0.84093803

 $01:21:44.340 \longrightarrow 01:21:46.440$ We have a question of a friend

NOTE Confidence: 0.84093803

 $01:21:46.440 \longrightarrow 01:21:48.230$ recently diagnosed with a glioblastoma.

NOTE Confidence: 0.84093803

01:21:48.230 --> 01:21:48.898 She's 67.

NOTE Confidence: 0.84093803

01:21:48.898 --> 01:21:50.902 She was otherwise in good health

NOTE Confidence: 0.84093803

 $01{:}21{:}50.902 \dashrightarrow 01{:}21{:}52.760$ before suffering a grand Mal seizure.

NOTE Confidence: 0.84093803

 $01:21:52.760 \longrightarrow 01:21:55.154$ She had a total resection last week and is

NOTE Confidence: 0.84093803

 $01:21:55.154 \longrightarrow 01:21:57.619$ now starting chemo and radiation therapy.

NOTE Confidence: 0.84093803

01:21:57.620 --> 01:22:00.220 She qualifies, do too as I understand it,

NOTE Confidence: 0.84093803

 $01:22:00.220 \longrightarrow 01:22:02.324$ a type of virus she has been exposed

NOTE Confidence: 0.84093803

 $01{:}22{:}02.324 \dashrightarrow 01{:}22{:}04.587$ to in the past for a clinical

NOTE Confidence: 0.84093803

01:22:04.587 --> 01:22:06.702 trial being conducted at Duke where

NOTE Confidence: 0.84093803

 $01:22:06.702 \longrightarrow 01:22:08.637$ she is currently being treated.

01:22:08.640 --> 01:22:10.518 Can you discuss the options for

NOTE Confidence: 0.84093803

 $01:22:10.518 \longrightarrow 01:22:12.530$ clinical trials that might be available?

NOTE Confidence: 0.84093803

 $01:22:12.530 \longrightarrow 01:22:14.420$ Please discuss in lay terms.

NOTE Confidence: 0.84093803

01:22:14.420 --> 01:22:16.460 Nick, do you know you've already,

NOTE Confidence: 0.84093803

 $01:22:16.460 \longrightarrow 01:22:18.160$ I think elaborated some, but.

NOTE Confidence: 0.89355797

01:22:19.320 --> 01:22:21.925 Yeah thanks. I mean, generally

NOTE Confidence: 0.89355797

 $01:22:21.925 \longrightarrow 01:22:25.230$ speaking in terms of clinical trials.

NOTE Confidence: 0.89355797

 $01:22:25.230 \longrightarrow 01:22:27.180$ There are individual factors for each

NOTE Confidence: 0.89355797

 $01:22:27.180 \longrightarrow 01:22:29.140$ trial regarding a person's eligibility,

NOTE Confidence: 0.89355797

 $01:22:29.140 \longrightarrow 01:22:31.933$ so it may be the type of

NOTE Confidence: 0.89355797

 $01:22:31.933 \longrightarrow 01:22:33.730$ tumor that they have.

NOTE Confidence: 0.89355797

 $01:22:33.730 \longrightarrow 01:22:35.956$ Even within glioblastoma Fedsmith later on,

NOTE Confidence: 0.89355797

 $01:22:35.960 \longrightarrow 01:22:37.735$ not related, and then there's

NOTE Confidence: 0.89355797

01:22:37.735 --> 01:22:39.510 certain time points at which

NOTE Confidence: 0.89355797

 $01:22:39.578 \longrightarrow 01:22:41.538$ folks can enter clinical trials.

 $01:22:41.540 \longrightarrow 01:22:43.772$ So one time point is generally

NOTE Confidence: 0.89355797

01:22:43.772 --> 01:22:45.260 after surgery before radiation,

NOTE Confidence: 0.89355797

 $01:22:45.260 \longrightarrow 01:22:48.420$ and then a second time point is at times when

NOTE Confidence: 0.89355797

 $01:22:48.495 \longrightarrow 01:22:51.589$ recurrence or relapse happens in the future.

NOTE Confidence: 0.89355797

 $01:22:51.590 \longrightarrow 01:22:54.082$ A few ways to find out about

NOTE Confidence: 0.89355797

 $01:22:54.082 \longrightarrow 01:22:56.050$ clinical trials are number one.

NOTE Confidence: 0.89355797

 $01:22:56.050 \longrightarrow 01:22:57.103$ Ask your doctor.

NOTE Confidence: 0.89355797

01:22:57.103 --> 01:22:59.209 They'll be aware of the clinical

NOTE Confidence: 0.89355797

 $01{:}22{:}59.209 \longrightarrow 01{:}23{:}01.260$ trials open at their institution.

NOTE Confidence: 0.89355797

 $01:23:01.260 \longrightarrow 01:23:04.070$ For example here at Yale.

NOTE Confidence: 0.89355797

 $01:23:04.070 \longrightarrow 01:23:06.986$ I'm aware of all the trials that we have

NOTE Confidence: 0.89355797

 $01{:}23{:}06.986 \to 01{:}23{:}09.814$ open and the investigators for the site

NOTE Confidence: 0.89355797

 $01:23:09.814 \longrightarrow 01:23:13.020$ will be the different docs in the practice.

NOTE Confidence: 0.89355797

01:23:13.020 --> 01:23:15.624 So at Yale is myself Doctor Romero,

NOTE Confidence: 0.89355797

 $01:23:15.630 \longrightarrow 01:23:16.376$ Doctor Barrington.

NOTE Confidence: 0.89355797 01:23:16.376 --> 01:23:16.749 Dr.

01:23:16.749 --> 01:23:18.614 Corbin then looking more broadly,

NOTE Confidence: 0.89355797

 $01{:}23{:}18.620 \dashrightarrow 01{:}23{:}21.406$ your doctor probably will have a sense

NOTE Confidence: 0.89355797

 $01:23:21.406 \longrightarrow 01:23:23.901$ of other clinical trials open and a

NOTE Confidence: 0.89355797

 $01:23:23.901 \longrightarrow 01:23:26.450$ way to kind of search for yourself.

NOTE Confidence: 0.89355797

 $01{:}23{:}26.450 \longrightarrow 01{:}23{:}30.257$ Or do you own research is to go to

NOTE Confidence: 0.89355797

 $01:23:30.257 \longrightarrow 01:23:31.474$ websiteclinical trials.gov and within

NOTE Confidence: 0.89355797

 $01:23:31.474 \longrightarrow 01:23:33.994$ that there's a on the landing page.

NOTE Confidence: 0.89355797

 $01{:}23{:}34.000 \dashrightarrow 01{:}23{:}36.816$ There is a field that you can enter.

NOTE Confidence: 0.89355797

01:23:36.820 --> 01:23:38.356 Search being for glioblastoma

NOTE Confidence: 0.89355797

 $01:23:38.356 \longrightarrow 01:23:41.015$ and then filter by the state that

NOTE Confidence: 0.89355797

01:23:41.015 --> 01:23:42.450 you live in your age.

NOTE Confidence: 0.89355797

 $01:23:42.450 \longrightarrow 01:23:44.739$ What type of trial you would be

NOTE Confidence: 0.89355797

 $01{:}23{:}44.739 \dashrightarrow 01{:}23{:}46.795$ interested in and look that way

NOTE Confidence: 0.89355797

01:23:46.795 --> 01:23:48.799 an another way that you could

NOTE Confidence: 0.89355797

 $01:23:48.799 \longrightarrow 01:23:50.538$ search for clinical trials.

 $01{:}23{:}50.540 \dashrightarrow 01{:}23{:}52.652$ Just do the national Brain Tumor

NOTE Confidence: 0.89355797

 $01:23:52.652 \longrightarrow 01:23:53.708$ Society website whichisbrain tumor.org.

NOTE Confidence: 0.89355797

 $01:23:53.710 \longrightarrow 01:23:55.726$ They have a clinical trial search

NOTE Confidence: 0.89355797

01:23:55.726 --> 01:23:58.034 feature which may be a little bit

NOTE Confidence: 0.89355797

01:23:58.034 --> 01:23:59.828 easier for less tech savvy folks

NOTE Confidence: 0.89355797

 $01:23:59.828 \longrightarrow 01:24:01.810$ to use in clinical trials.gov.

NOTE Confidence: 0.77353203

 $01{:}24{:}04.080 \dashrightarrow 01{:}24{:}05.760$ So I know it Chris mentioned the goal

NOTE Confidence: 0.77353203

 $01{:}24{:}05.760 \dashrightarrow 01{:}24{:}07.479$ of the Connecticut brain tumor alliances

NOTE Confidence: 0.77353203

 $01:24:07.479 \longrightarrow 01:24:09.345$ to make Connecticut a center of

NOTE Confidence: 0.77353203

 $01:24:09.396 \longrightarrow 01:24:11.356$ excellence for different clinical trials.

NOTE Confidence: 0.77353203

01:24:11.360 --> 01:24:14.267 And I I. Do know that Yale has the

NOTE Confidence: 0.77353203

01:24:14.267 --> 01:24:17.248 most number of clinical trials open,

NOTE Confidence: 0.77353203

 $01:24:17.250 \longrightarrow 01:24:19.371$ but then Hartford Hospital and you can't

NOTE Confidence: 0.77353203

 $01:24:19.371 \longrightarrow 01:24:21.768$ help also have different clinical trials.

NOTE Confidence: 0.77353203

 $01:24:21.770 \longrightarrow 01:24:24.059$ So there are a variety of clinical

NOTE Confidence: 0.77353203

01:24:24.059 --> 01:24:25.988 trials open for patients and they

 $01:24:25.988 \longrightarrow 01:24:28.586$ come and go as they fill up their

NOTE Confidence: 0.77353203

 $01:24:28.586 \longrightarrow 01:24:30.470$ recruitment goal for patients.

NOTE Confidence: 0.77353203

01:24:30.470 --> 01:24:33.011 And we're always looking to expand the

NOTE Confidence: 0.77353203

 $01:24:33.011 \longrightarrow 01:24:35.783$ number of trials that we offer here and

NOTE Confidence: 0.77353203

 $01:24:35.783 \longrightarrow 01:24:38.130$ bring that to fruition for the state.

NOTE Confidence: 0.8758151

 $01:24:41.530 \longrightarrow 01:24:43.679$ Great, and along those lines you can

NOTE Confidence: 0.8758151

01:24:43.679 --> 01:24:46.313 always reach out to us for second opinions

NOTE Confidence: 0.8758151

 $01:24:46.313 \longrightarrow 01:24:48.550$ with regards to clinical trials and care.

NOTE Confidence: 0.7630119

 $01:24:50.700 \longrightarrow 01:24:52.785$ Alright, are there any additional

NOTE Confidence: 0.7630119

 $01:24:52.785 \longrightarrow 01:24:55.560$ trials for Optune device in GBM Nick?

NOTE Confidence: 0.8271177

 $01:24:56.120 \longrightarrow 01:24:58.544$ So there is a device trial

NOTE Confidence: 0.8271177

 $01:24:58.544 \longrightarrow 01:25:00.160$ for newly diagnosed patients.

NOTE Confidence: 0.8271177

 $01{:}25{:}00.160 \dashrightarrow 01{:}25{:}02.752$ It's open at Hartford Hospital and

NOTE Confidence: 0.8271177

 $01{:}25{:}02.752 \dashrightarrow 01{:}25{:}05.644$ smaller hospitals around the US and in

NOTE Confidence: 0.8271177

 $01:25:05.644 \longrightarrow 01:25:07.834$ this study there comparing two groups,

01:25:07.840 --> 01:25:10.563 the first group being patients who will

NOTE Confidence: 0.8271177

 $01:25:10.563 \longrightarrow 01:25:12.622$ receive Optune device after radiation

NOTE Confidence: 0.8271177

 $01:25:12.622 \longrightarrow 01:25:15.106$ is finished in the standard fashion.

NOTE Confidence: 0.8271177

 $01:25:15.110 \longrightarrow 01:25:17.679$ That's the kind of the control group

NOTE Confidence: 0.8271177

 $01:25:17.679 \longrightarrow 01:25:20.156$ and the experimental group starts Optune

NOTE Confidence: 0.8271177

01:25:20.156 --> 01:25:22.772 device when they start radiation therapy,

NOTE Confidence: 0.8271177

 $01:25:22.780 \longrightarrow 01:25:25.195$ with the theory being that

NOTE Confidence: 0.8271177

 $01:25:25.195 \longrightarrow 01:25:27.127$ starting up soon earlier.

NOTE Confidence: 0.8271177

 $01{:}25{:}27.130 \dashrightarrow 01{:}25{:}29.237$ It's just longer time of exposure to

NOTE Confidence: 0.8271177

 $01:25:29.237 \longrightarrow 01:25:31.339$ the fields which could be beneficial,

NOTE Confidence: 0.8271177

 $01{:}25{:}31.340 \dashrightarrow 01{:}25{:}33.629$ and there may be some interaction between

NOTE Confidence: 0.8271177

 $01:25:33.629 \longrightarrow 01:25:35.663$ electrical fields and radiation that that

NOTE Confidence: 0.8271177

 $01:25:35.663 \longrightarrow 01:25:37.655$ could be more beneficial killing tumor

NOTE Confidence: 0.8271177

 $01:25:37.655 \longrightarrow 01:25:39.851$ cells so that study is currently open

NOTE Confidence: 0.8271177

01:25:39.851 --> 01:25:41.708 for enrollment in Hartford I believe,

NOTE Confidence: 0.8271177

 $01:25:41.708 \longrightarrow 01:25:43.328$ and I and other places,

01:25:43.330 --> 01:25:44.950 and I'm I'm looking forward

NOTE Confidence: 0.8271177

 $01:25:44.950 \longrightarrow 01:25:46.246$ to seeing the results.

NOTE Confidence: 0.8271177

 $01:25:46.250 \longrightarrow 01:25:47.866$ The results of that study,

NOTE Confidence: 0.8271177

 $01:25:47.866 \longrightarrow 01:25:49.810$ probably in a couple of years

NOTE Confidence: 0.8271177

 $01:25:49.810 \longrightarrow 01:25:51.106$ off into the future.

NOTE Confidence: 0.814859

01:25:53.190 --> 01:25:54.670 Next question from email.

NOTE Confidence: 0.814859

 $01:25:54.670 \longrightarrow 01:25:56.520$ We have some concerns regarding

NOTE Confidence: 0.814859

 $01:25:56.520 \longrightarrow 01:25:58.976$ the covid vaccines for brain tumor

NOTE Confidence: 0.814859

 $01:25:58.976 \longrightarrow 01:26:00.592$ patients in active treatment,

NOTE Confidence: 0.814859

 $01:26:00.600 \longrightarrow 01:26:02.852$ particularly on the clinical

NOTE Confidence: 0.814859

 $01:26:02.852 \longrightarrow 01:26:05.667$ trial with Tim is Olumide.

NOTE Confidence: 0.814859

 $01:26:05.670 \longrightarrow 01:26:07.959$ How will we know if the code

NOTE Confidence: 0.814859

 $01{:}26{:}07.959 \dashrightarrow 01{:}26{:}09.390$ vaccine is effectively brain?

NOTE Confidence: 0.814859

 $01:26:09.390 \longrightarrow 01:26:10.738$ Can't is affecting brain

NOTE Confidence: 0.814859

01:26:10.738 --> 01:26:11.749 cancer patients negatively?

 $01:26:11.750 \longrightarrow 01:26:13.440$ Or if it is ineffective

NOTE Confidence: 0.814859

 $01:26:13.440 \longrightarrow 01:26:14.792$ for brain tumor patients,

NOTE Confidence: 0.814859

01:26:14.800 --> 01:26:16.490 is just being studied currently?

NOTE Confidence: 0.814859

 $01:26:16.490 \longrightarrow 01:26:19.164$ Or is the data specific to this

NOTE Confidence: 0.814859

01:26:19.164 --> 01:26:21.619 demographic not being collected at all?

NOTE Confidence: 0.814859

 $01:26:21.620 \longrightarrow 01:26:23.040$ Are there any symptoms that

NOTE Confidence: 0.814859

 $01:26:23.040 \longrightarrow 01:26:24.176$ cancer patients and treatment

NOTE Confidence: 0.814859

01:26:24.176 --> 01:26:25.664 should watch out for with the

NOTE Confidence: 0.814859

01:26:25.664 --> 01:26:26.819 first or second vaccine shot?

NOTE Confidence: 0.7914201

01:26:30.230 --> 01:26:32.489 I'd be happy to weigh in on that huge.

NOTE Confidence: 0.7914201

 $01{:}26{:}32.490 \dashrightarrow 01{:}26{:}34.330$ I've had a number of patients of mine

NOTE Confidence: 0.7914201

 $01:26:34.330 \longrightarrow 01:26:36.246$ asked me about the Covid vaccine and.

NOTE Confidence: 0.83330405

 $01:26:38.920 \longrightarrow 01:26:39.542$ Generally speaking,

NOTE Confidence: 0.83330405

 $01{:}26{:}39.542 \dashrightarrow 01{:}26{:}41.097$ and pretty much essentially in

NOTE Confidence: 0.83330405

01:26:41.097 --> 01:26:42.619 every persons case I recommend,

NOTE Confidence: 0.83330405

 $01:26:42.620 \longrightarrow 01:26:45.329$ they would proceed with the covid vaccine.

 $01:26:45.330 \longrightarrow 01:26:46.742$ To protect themselves against

NOTE Confidence: 0.83330405

 $01{:}26{:}46.742 \dashrightarrow 01{:}26{:}48.507$ Covid covid's very serious illness,

NOTE Confidence: 0.83330405

01:26:48.510 --> 01:26:51.030 I've lossed patients of mine and friends

NOTE Confidence: 0.83330405

01:26:51.030 --> 01:26:53.780 of mine to covid as I'm, I'm sure,

NOTE Confidence: 0.83330405

 $01:26:53.780 \longrightarrow 01:26:55.820$ pretty probably everyone on the call

NOTE Confidence: 0.83330405

 $01:26:55.820 \longrightarrow 01:26:57.880$ has over half a million Americans

NOTE Confidence: 0.83330405

01:26:57.880 --> 01:27:00.289 have died from covid and the vaccines

NOTE Confidence: 0.83330405

 $01:27:00.289 \longrightarrow 01:27:02.551$ have been proven safe and effective

NOTE Confidence: 0.83330405

 $01:27:02.551 \longrightarrow 01:27:04.394$ to reduce severe covid essentially

NOTE Confidence: 0.83330405

01:27:04.394 --> 01:27:06.506 eliminate the chance of severe covid,

NOTE Confidence: 0.83330405

 $01:27:06.510 \longrightarrow 01:27:09.978$ so there appears to be no.

NOTE Confidence: 0.83330405

 $01:27:09.980 \longrightarrow 01:27:13.214$ Real changing of a person's body or

NOTE Confidence: 0.83330405

 $01{:}27{:}13.214 \dashrightarrow 01{:}27{:}16.579$ biology that would impact GBM in any way,

NOTE Confidence: 0.83330405

01:27:16.580 --> 01:27:18.340 either positive or negative,

NOTE Confidence: 0.83330405

 $01:27:18.340 \longrightarrow 01:27:20.100$ with the covid vaccine.

 $01:27:20.100 \longrightarrow 01:27:23.047$ Some folks do get a reaction as

NOTE Confidence: 0.83330405

 $01:27:23.047 \longrightarrow 01:27:26.068$ they are like immune system becomes

NOTE Confidence: 0.83330405

 $01:27:26.068 \longrightarrow 01:27:29.380$ immunized by the vaccine is my.

NOTE Confidence: 0.83330405

01:27:29.380 --> 01:27:31.540 Reports I'm hearing or generally it's

NOTE Confidence: 0.83330405

 $01:27:31.540 \longrightarrow 01:27:34.117$ after the shot within 24 to 48 hours

NOTE Confidence: 0.83330405

 $01{:}27{:}34.117 \dashrightarrow 01{:}27{:}36.100$ lasting for a short period of time.

NOTE Confidence: 0.83330405

 $01:27:36.100 \longrightarrow 01:27:37.700$ Generally that's the 24 hours

NOTE Confidence: 0.83330405

 $01:27:37.700 \longrightarrow 01:27:39.300$ of just feeling something like

NOTE Confidence: 0.83330405

01:27:39.353 --> 01:27:40.577 fatigue or minor fever,

NOTE Confidence: 0.83330405

 $01:27:40.580 \longrightarrow 01:27:42.566$ and these can be treated with

NOTE Confidence: 0.83330405

 $01:27:42.566 \longrightarrow 01:27:43.890$ over the counter medications

NOTE Confidence: 0.83330405

 $01:27:43.951 \longrightarrow 01:27:45.376$ like Tylenol or Mot ring.

NOTE Confidence: 0.83330405

 $01:27:45.380 \longrightarrow 01:27:47.300$ And then you know that's it,

NOTE Confidence: 0.83330405

01:27:47.300 --> 01:27:48.875 then you you've been vaccinated

NOTE Confidence: 0.83330405

 $01:27:48.875 \longrightarrow 01:27:51.472$ and and you will no longer be at

NOTE Confidence: 0.83330405

 $01:27:51.472 \longrightarrow 01:27:53.057$ risk of getting secret Cove.

 $01:27:53.060 \longrightarrow 01:27:55.620$ It's so I can recommend everyone I meet.

NOTE Confidence: 0.83330405

 $01{:}27{:}55.620 {\:{\circ}{\circ}{\circ}}>01{:}27{:}57.546$ Please proceed with getting your covid

NOTE Confidence: 0.83330405

 $01:27:57.546 \longrightarrow 01:27:59.779$ vaccine and that's how will crush Covid.

NOTE Confidence: 0.7997054

 $01:28:01.420 \longrightarrow 01:28:04.450$ That's a whole other weapon alright.

NOTE Confidence: 0.7997054

 $01:28:04.450 \longrightarrow 01:28:05.878$ And there's guidelines now

NOTE Confidence: 0.7997054

 $01:28:05.878 \longrightarrow 01:28:08.020$ from the CDC in terms of

NOTE Confidence: 0.8234188

01:28:08.020 --> 01:28:10.267 correct. Also, I will point out there

NOTE Confidence: 0.8234188

 $01{:}28{:}10.267 \dashrightarrow 01{:}28{:}13.275$ was a hold placed on the single shot

NOTE Confidence: 0.8234188

 $01:28:13.275 \longrightarrow 01:28:15.250$ Johnson and Johnson vaccine after

NOTE Confidence: 0.8234188

 $01:28:15.317 \longrightarrow 01:28:17.655$ there were a small number of cases,

NOTE Confidence: 0.8234188

01:28:17.660 --> 01:28:19.998 a few cases reported of a possible

NOTE Confidence: 0.8234188

01:28:19.998 --> 01:28:21.590 Association with blood clotting,

NOTE Confidence: 0.8234188

 $01{:}28{:}21.590 \dashrightarrow 01{:}28{:}22.658$ something called cerebral

NOTE Confidence: 0.8234188

01:28:22.658 --> 01:28:24.438 venous sign from Sinus Trumbo,

NOTE Confidence: 0.8234188

 $01:28:24.440 \longrightarrow 01:28:27.135$ SIS and so out of several million

 $01:28:27.135 \longrightarrow 01:28:30.140$ doses of the vaccine given just a.

NOTE Confidence: 0.8234188

 $01{:}28{:}30.140 \dashrightarrow 01{:}28{:}32.606$ Few folks had developed the thrombosis,

NOTE Confidence: 0.8234188

 $01{:}28{:}32.610 \dashrightarrow 01{:}28{:}34.695$ so it's still somewhat unclear

NOTE Confidence: 0.8234188

 $01:28:34.695 \longrightarrow 01:28:37.662$ if there is a even an actual

NOTE Confidence: 0.8234188

 $01:28:37.662 \longrightarrow 01:28:40.026$ relation of of that or not.

NOTE Confidence: 0.8234188

01:28:40.030 --> 01:28:42.655 But with a person with any increased

NOTE Confidence: 0.8234188

 $01:28:42.655 \longrightarrow 01:28:44.761$ risk factors of getting deep

NOTE Confidence: 0.8234188

01:28:44.761 --> 01:28:47.026 vein thrombosis or blood clots,

NOTE Confidence: 0.8234188

 $01:28:47.030 \longrightarrow 01:28:50.326$ the other two vaccines available in the US.

NOTE Confidence: 0.8234188

01:28:50.330 --> 01:28:52.646 The Pfizer and Moderna brand vaccines

NOTE Confidence: 0.8234188

 $01{:}28{:}52.646 \dashrightarrow 01{:}28{:}55.132$ both don't have any known Association

NOTE Confidence: 0.8234188

01:28:55.132 --> 01:28:58.170 with blood clots and could be something

NOTE Confidence: 0.8234188

 $01:28:58.170 \longrightarrow 01:29:01.247$ that's definitely reasonable for a person to.

NOTE Confidence: 0.8234188

01:29:01.250 --> 01:29:03.800 Receive alright

NOTE Confidence: 0.8943112

01:29:03.800 --> 01:29:08.758 a few more here. Can you elaborate Nick?

NOTE Confidence: 0.8943112

 $01:29:08.758 \longrightarrow 01:29:12.028$ Just real quick, maybe Methley did versus

 $01:29:12.030 \longrightarrow 01:29:12.802$ unmethylated. Sure,

NOTE Confidence: 0.79012245

 $01:29:12.802 \longrightarrow 01:29:15.504$ so we now know there are two

NOTE Confidence: 0.79012245

01:29:15.504 --> 01:29:17.680 main subtypes of glioblastoma

NOTE Confidence: 0.79012245

01:29:17.680 --> 01:29:19.968 methyl lated and unmethylated,

NOTE Confidence: 0.79012245

 $01:29:19.970 \longrightarrow 01:29:23.379$ and that refers to the status of

NOTE Confidence: 0.79012245

 $01:29:23.379 \longrightarrow 01:29:27.117$ the gene for the MGMT enzyme and.

NOTE Confidence: 0.79012245

01:29:27.120 --> 01:29:29.904 When the gene is metallated within the DNA,

NOTE Confidence: 0.79012245

 $01:29:29.910 \longrightarrow 01:29:33.334$ the gene is turned off and those patients

NOTE Confidence: 0.79012245

 $01:29:33.334 \longrightarrow 01:29:36.173$ don't have the gene active and so

NOTE Confidence: 0.79012245

 $01:29:36.173 \longrightarrow 01:29:39.468$ they don't have much of the MGMT enzyme.

NOTE Confidence: 0.79012245

 $01{:}29{:}39.470 \dashrightarrow 01{:}29{:}41.666$ An unmethylated to gene is active.

NOTE Confidence: 0.79012245

 $01:29:41.670 \longrightarrow 01:29:42.768$ It's turned on.

NOTE Confidence: 0.79012245

01:29:42.768 --> 01:29:45.330 Unmethylated has high levels of the enzyme,

NOTE Confidence: 0.79012245

01:29:45.330 --> 01:29:47.520 and tennis olamide is less effective,

NOTE Confidence: 0.79012245

 $01:29:47.520 \longrightarrow 01:29:49.683$ so it ends all of my damages

 $01:29:49.683 \longrightarrow 01:29:52.280$ DNA as its mechanism of action.

NOTE Confidence: 0.79012245

 $01{:}29{:}52.280 \dashrightarrow 01{:}29{:}54.110$ MGMT enzyme reverses the damage,

NOTE Confidence: 0.79012245

 $01:29:54.110 \longrightarrow 01:29:55.326$ so 10 is old.

NOTE Confidence: 0.79012245

 $01:29:55.326 \longrightarrow 01:29:56.846$ Might still has some effectiveness

NOTE Confidence: 0.79012245

 $01:29:56.846 \longrightarrow 01:29:58.500$ and unmethylated patients,

NOTE Confidence: 0.79012245

 $01:29:58.500 \longrightarrow 01:30:00.660$ but it's it's less than methyl

NOTE Confidence: 0.79012245

 $01{:}30{:}00.660 \dashrightarrow 01{:}30{:}03.671$ lated and so we believe that just

NOTE Confidence: 0.79012245

 $01:30:03.671 \longrightarrow 01:30:06.647$ metallated patients in general or more.

NOTE Confidence: 0.79012245

01:30:06.650 --> 01:30:08.430 Susceptible to the benefits of

NOTE Confidence: 0.79012245

01:30:08.430 --> 01:30:09.854 radiation and chemo therapies,

NOTE Confidence: 0.79012245

 $01:30:09.860 \longrightarrow 01:30:13.073$ and that may be why the prognosis is better.

NOTE Confidence: 0.79012245

 $01:30:13.080 \longrightarrow 01:30:15.600$ And then there may be other

NOTE Confidence: 0.79012245

 $01:30:15.600 \longrightarrow 01:30:17.740$ biological factors that just make.

NOTE Confidence: 0.79012245

01:30:17.740 --> 01:30:19.488 Methylate is subtype patients

NOTE Confidence: 0.79012245

01:30:19.488 --> 01:30:21.236 better responders to therapy,

NOTE Confidence: 0.79012245

 $01:30:21.240 \longrightarrow 01:30:23.420$ and they may do better,

 $01:30:23.420 \longrightarrow 01:30:27.344$ and these are still kind of being worked out.

NOTE Confidence: 0.8169612

 $01:30:28.990 \longrightarrow 01:30:31.666$ Great in the interest of time.

NOTE Confidence: 0.8169612

 $01:30:31.670 \longrightarrow 01:30:33.910$ Will take a few more,

NOTE Confidence: 0.8169612

 $01:30:33.910 \longrightarrow 01:30:36.346$ one here asking to provide insight

NOTE Confidence: 0.8169612

 $01:30:36.346 \longrightarrow 01:30:38.543$ of my experience of affectedness

NOTE Confidence: 0.8169612

 $01{:}30{:}38.543 \dashrightarrow 01{:}30{:}41.507$ of five Ala in extent perception,

NOTE Confidence: 0.8169612

 $01:30:41.510 \longrightarrow 01:30:43.745$ overall survival of tumors as

NOTE Confidence: 0.8169612

 $01{:}30{:}43.745 \dashrightarrow 01{:}30{:}45.980$ compared to intra operative MRI.

NOTE Confidence: 0.8169612

 $01:30:45.980 \longrightarrow 01:30:48.871$ In my personal experience I really use

NOTE Confidence: 0.8169612

 $01:30:48.871 \longrightarrow 01:30:52.227$ an rely on the Inter operative MRI.

NOTE Confidence: 0.8169612

 $01:30:52.230 \longrightarrow 01:30:54.540$ That's just my strategy and

NOTE Confidence: 0.8169612

 $01:30:54.540 \longrightarrow 01:30:57.600$ seems to work the best for me.

NOTE Confidence: 0.8169612

 $01:30:57.600 \longrightarrow 01:30:58.916$ Man we do review.

NOTE Confidence: 0.8169612

 $01{:}30{:}58.916 \dashrightarrow 01{:}31{:}01.791$ We we do first of all manage a

NOTE Confidence: 0.8169612

01:31:01.791 --> 01:31:04.626 very large database that has all of

 $01:31:04.626 \longrightarrow 01:31:07.907$ our patients and outcomes that we

NOTE Confidence: 0.8169612

 $01:31:07.907 \longrightarrow 01:31:10.692$ follow which we continually analyze,

NOTE Confidence: 0.8169612

 $01:31:10.700 \longrightarrow 01:31:12.944$ and it does support the use

NOTE Confidence: 0.8169612

 $01:31:12.944 \longrightarrow 01:31:15.440$ of of our current strategies.

NOTE Confidence: 0.8169612

 $01:31:15.440 \longrightarrow 01:31:20.326$ So we have been satisfied with that.

NOTE Confidence: 0.8169612

 $01{:}31{:}20.330 \dashrightarrow 01{:}31{:}22.030$ Next one, enjoy the presentations.

NOTE Confidence: 0.8169612

 $01:31:22.030 \longrightarrow 01:31:23.800$ I've recently joined the staff

NOTE Confidence: 0.8169612

01:31:23.800 --> 01:31:25.941 at Rutgers in New Brunswick after

NOTE Confidence: 0.8169612

01:31:25.941 --> 01:31:27.466 16 years in Kansas City.

NOTE Confidence: 0.8169612

01:31:27.470 --> 01:31:28.830 Looking forward to connecting

NOTE Confidence: 0.8169612

 $01{:}31{:}28.830 {\:{\circ}{\circ}{\circ}}>01{:}31{:}29.850$ professionally with us.

NOTE Confidence: 0.8169612

 $01:31:29.850 \longrightarrow 01:31:32.230$ Sorry, that was just to the panelists.

NOTE Confidence: 0.8169612

 $01:31:32.230 \longrightarrow 01:31:35.176$ We look forward to connecting with

NOTE Confidence: 0.8169612

 $01:31:35.176 \longrightarrow 01:31:39.840$ you as well. That was the last one.

NOTE Confidence: 0.8169612

01:31:39.840 --> 01:31:41.178 And someone just to thank you,

NOTE Confidence: 0.8169612

 $01:31:41.180 \longrightarrow 01:31:43.499$ so you're welcome.

01:31:43.500 --> 01:31:46.111 I just want to again thank Chris

NOTE Confidence: 0.8169612

 $01:31:46.111 \longrightarrow 01:31:47.740$ Cassano from Connecticut Brain

NOTE Confidence: 0.8169612

01:31:47.740 --> 01:31:49.520 Tumor Alliance Renee Gaudet,

NOTE Confidence: 0.8169612

 $01:31:49.520 \longrightarrow 01:31:51.124$ who thankfully organized all

NOTE Confidence: 0.8169612

 $01:31:51.124 \longrightarrow 01:31:53.530$ of this and put this together.

NOTE Confidence: 0.8169612

01:31:53.530 --> 01:31:56.330 She always does such an outstanding job,

NOTE Confidence: 0.8169612

 $01:31:56.330 \longrightarrow 01:31:57.938$ and then my Co.

NOTE Confidence: 0.8169612

01:31:57.938 --> 01:32:00.340 Panelist, Nick Blonde and Bruce Mcgibbon,

NOTE Confidence: 0.8169612

 $01:32:00.340 \longrightarrow 01:32:02.345$ and Brian Gin for really

NOTE Confidence: 0.8169612

 $01:32:02.345 \longrightarrow 01:32:03.548$ their outstanding talks.

NOTE Confidence: 0.8169612

01:32:03.550 --> 01:32:06.357 All in honor of Doctor Susie Baras,

NOTE Confidence: 0.8169612

 $01:32:06.360 \longrightarrow 01:32:08.360$ who is an amazing person,

NOTE Confidence: 0.8169612

 $01{:}32{:}08.360 \dashrightarrow 01{:}32{:}10.910$ continuing to be treated for for

NOTE Confidence: 0.8169612

 $01:32:10.910 \longrightarrow 01:32:13.094$ glioblastoma and and really giving

NOTE Confidence: 0.8169612

01:32:13.094 --> 01:32:15.922 back and making sure that patients can

 $01:32:15.922 \longrightarrow 01:32:18.507$ receive the same level of care that.

NOTE Confidence: 0.8169612

 $01:32:18.510 \longrightarrow 01:32:21.062$ She has so we look forward to more

NOTE Confidence: 0.8169612

 $01:32:21.062 \longrightarrow 01:32:23.488$ of these seminars in the future.

NOTE Confidence: 0.8169612

 $01:32:23.490 \longrightarrow 01:32:26.088$ And if there's any more comments

NOTE Confidence: 0.8169612

 $01:32:26.088 \longrightarrow 01:32:27.387$ from my panelists.

NOTE Confidence: 0.8169612

01:32:27.390 --> 01:32:28.755 I'll turn it over to you guys

NOTE Confidence: 0.8169612

 $01:32:28.755 \longrightarrow 01:32:29.840$ before we say goodnight.

NOTE Confidence: 0.82497567

01:32:33.020 --> 01:32:35.194 Just that want to echo what you said?

NOTE Confidence: 0.82497567

 $01:32:35.200 \dashrightarrow 01:32:37.104$ Thank you for the help in organizing

NOTE Confidence: 0.82497567

01:32:37.104 --> 01:32:38.770 and thanks everyone for joining and

NOTE Confidence: 0.82497567

 $01:32:38.770 \dashrightarrow 01:32:40.360$ pleasure to be here this evening.

NOTE Confidence: 0.85076165

 $01:32:41.880 \longrightarrow 01:32:44.196$ Come to our tumor support groups.

NOTE Confidence: 0.85076165

 $01:32:44.200 \longrightarrow 01:32:45.970$ Email us if you have any

NOTE Confidence: 0.85076165

01:32:45.970 --> 01:32:47.815 questions or want any additional

NOTE Confidence: 0.85076165

 $01:32:47.815 \longrightarrow 01:32:49.597$ opinions or conversations.

NOTE Confidence: 0.85076165

 $01:32:49.600 \dashrightarrow 01:32:51.530$ Brain tumor surgery at yale.edu.

 $01:32:51.530 \longrightarrow 01:32:54.890$ Happy to connect you. Alright.

NOTE Confidence: 0.85076165

 $01{:}32{:}54.890 \longrightarrow 01{:}32{:}56.576$ Thank you, have a good night.

NOTE Confidence: 0.7003849

 $01:32:58.910 \longrightarrow 01:33:02.166$ Did everyone thanks?