

WEBVTT

NOTE duration:"00:27:45"

NOTE recognizability:0.852

NOTE language:en-us

NOTE Confidence: 0.937167225555556

00:00:06.510 --> 00:00:09.086 So I'm going to just start out by

NOTE Confidence: 0.937167225555556

00:00:09.086 --> 00:00:11.335 saying give you a little background

NOTE Confidence: 0.937167225555556

00:00:11.335 --> 00:00:14.134 on small cell before we get to sort

NOTE Confidence: 0.937167225555556

00:00:14.134 --> 00:00:16.740 of the the the life cycle that Natural

NOTE Confidence: 0.937167225555556

00:00:16.740 --> 00:00:19.009 History and and how we treat it.

NOTE Confidence: 0.937167225555556

00:00:19.010 --> 00:00:20.675 So there are basically two

NOTE Confidence: 0.937167225555556

00:00:20.675 --> 00:00:22.007 types of lung cancer.

NOTE Confidence: 0.937167225555556

00:00:22.010 --> 00:00:23.770 There's small cell lung cancer

NOTE Confidence: 0.937167225555556

00:00:23.770 --> 00:00:26.037 which is about 13 to 15%.

NOTE Confidence: 0.937167225555556

00:00:26.037 --> 00:00:28.065 Everything else is non

NOTE Confidence: 0.937167225555556

00:00:28.065 --> 00:00:30.093 small cell lung cancer.

NOTE Confidence: 0.937167225555556

00:00:30.100 --> 00:00:32.196 You know, as you know and you'll find

NOTE Confidence: 0.937167225555556

00:00:32.196 --> 00:00:35.760 out non small cell they're different.

NOTE Confidence: 0.937167225555556

00:00:35.760 --> 00:00:39.670 Flavors, soap taste, vanilla chocolate,  
NOTE Confidence: 0.937167225555556

00:00:39.670 --> 00:00:41.770 pistachio that's squamous,  
NOTE Confidence: 0.937167225555556

00:00:41.770 --> 00:00:43.270 adeno cursing, and so forth.  
NOTE Confidence: 0.937167225555556

00:00:43.270 --> 00:00:45.034 And then you break those down  
NOTE Confidence: 0.937167225555556

00:00:45.034 --> 00:00:46.790 in terms of molecular subtypes,  
NOTE Confidence: 0.937167225555556

00:00:46.790 --> 00:00:49.886 but I'm concentrating on small cell.  
NOTE Confidence: 0.937167225555556

00:00:49.890 --> 00:00:56.546 Today and. Small cell is called back oops.  
NOTE Confidence: 0.937167225555556

00:00:56.550 --> 00:00:58.827 Let me skip to this one because of what  
NOTE Confidence: 0.937167225555556

00:00:58.827 --> 00:01:01.366 it looks like underneath the microscope,  
NOTE Confidence: 0.937167225555556

00:01:01.370 --> 00:01:04.170 so these are these small blue cells.  
NOTE Confidence: 0.937167225555556

00:01:04.170 --> 00:01:07.680 And it's characterized by very  
NOTE Confidence: 0.937167225555556

00:01:07.680 --> 00:01:09.786 rapid proliferation time.  
NOTE Confidence: 0.937167225555556

00:01:09.790 --> 00:01:10.634 You know,  
NOTE Confidence: 0.937167225555556

00:01:10.634 --> 00:01:12.322 it metastasizes early development  
NOTE Confidence: 0.937167225555556

00:01:12.322 --> 00:01:14.580 of Mets to other places.  
NOTE Confidence: 0.937167225555556

00:01:14.580 --> 00:01:17.490 And because it's growing so quickly,

NOTE Confidence: 0.937167225555556  
00:01:17.490 --> 00:01:20.562 it also is very sensitive to  
NOTE Confidence: 0.937167225555556  
00:01:20.562 --> 00:01:22.610 both chemotherapy and radiation.  
NOTE Confidence: 0.937167225555556  
00:01:22.610 --> 00:01:24.068 So for pathology,  
NOTE Confidence: 0.937167225555556  
00:01:24.068 --> 00:01:26.984 these are small blue style cells.  
NOTE Confidence: 0.937167225555556  
00:01:26.990 --> 00:01:29.110 There's very sparse cytoplasm.  
NOTE Confidence: 0.937167225555556  
00:01:29.110 --> 00:01:32.290 You often see nuclear molding or  
NOTE Confidence: 0.937167225555556  
00:01:32.375 --> 00:01:35.315 what they call also crush artifact.  
NOTE Confidence: 0.937167225555556  
00:01:35.320 --> 00:01:37.360 It's a high grade neuroendocrine tumor,  
NOTE Confidence: 0.937167225555556  
00:01:37.360 --> 00:01:38.950 which means that there are.  
NOTE Confidence: 0.653751416222222  
00:01:41.620 --> 00:01:43.975 Markers positive for for some  
NOTE Confidence: 0.653751416222222  
00:01:43.975 --> 00:01:45.859 of these neuroendocrine cells.  
NOTE Confidence: 0.653751416222222  
00:01:45.860 --> 00:01:47.784 Chromogranin snap to fizan.  
NOTE Confidence: 0.653751416222222  
00:01:47.784 --> 00:01:52.128 Those are some of the things that we look at.  
NOTE Confidence: 0.653751416222222  
00:01:52.130 --> 00:01:55.208 So small cell, I'll just go back to that  
NOTE Confidence: 0.653751416222222  
00:01:55.208 --> 00:01:57.790 other slide that just sort of says.  
NOTE Confidence: 0.653751416222222

00:01:57.790 --> 00:02:00.394 We have some problems there we go.  
NOTE Confidence: 0.653751416222222

00:02:00.400 --> 00:02:02.824 This was a paper from the New England  
NOTE Confidence: 0.653751416222222

00:02:02.824 --> 00:02:05.326 Journal of Medicine two years ago that  
NOTE Confidence: 0.653751416222222

00:02:05.326 --> 00:02:07.591 actually showed that there's a decrease  
NOTE Confidence: 0.653751416222222

00:02:07.591 --> 00:02:09.787 in both the incidence and mortality  
NOTE Confidence: 0.653751416222222

00:02:09.787 --> 00:02:12.190 of small cell amongst men and women.  
NOTE Confidence: 0.653751416222222

00:02:12.190 --> 00:02:13.165 So that's that.  
NOTE Confidence: 0.653751416222222

00:02:13.170 --> 00:02:15.018 We saw that in non small cell  
NOTE Confidence: 0.653751416222222

00:02:15.018 --> 00:02:17.158 also in small stone that properly  
NOTE Confidence: 0.653751416222222

00:02:17.158 --> 00:02:19.290 reflects the decreases in smoking.  
NOTE Confidence: 0.826421117666667

00:02:23.540 --> 00:02:24.764 It terms of staging.  
NOTE Confidence: 0.826421117666667

00:02:24.764 --> 00:02:27.658 This is how we do the staging on the  
NOTE Confidence: 0.826421117666667

00:02:27.658 --> 00:02:30.362 left here and this is from the via  
NOTE Confidence: 0.826421117666667

00:02:30.362 --> 00:02:32.707 VA study that came that was really  
NOTE Confidence: 0.826421117666667

00:02:32.707 --> 00:02:35.438 done at back in the 70s and what we  
NOTE Confidence: 0.826421117666667

00:02:35.438 --> 00:02:38.205 say is that that you are basically

NOTE Confidence: 0.826421117666667  
00:02:38.205 --> 00:02:40.064 limited stage versus extensive stage  
NOTE Confidence: 0.826421117666667  
00:02:40.064 --> 00:02:42.580 and extensive stage is the same thing.  
NOTE Confidence: 0.826421117666667  
00:02:42.580 --> 00:02:45.905 If you have a metastasis to different  
NOTE Confidence: 0.826421117666667  
00:02:45.905 --> 00:02:49.404 parts of your body and or different  
NOTE Confidence: 0.826421117666667  
00:02:49.404 --> 00:02:52.368 organs or in the pleural fluid.  
NOTE Confidence: 0.826421117666667  
00:02:52.370 --> 00:02:54.524 And limited means that you're really  
NOTE Confidence: 0.826421117666667  
00:02:54.524 --> 00:02:56.729 just limited to the thorax and,  
NOTE Confidence: 0.826421117666667  
00:02:56.730 --> 00:02:58.870 and that's important because limited  
NOTE Confidence: 0.826421117666667  
00:02:58.870 --> 00:03:01.570 allows you to or actually thorax,  
NOTE Confidence: 0.826421117666667  
00:03:01.570 --> 00:03:04.190 and specifically a radiation portal.  
NOTE Confidence: 0.826421117666667  
00:03:04.190 --> 00:03:06.310 For limited disease we we  
NOTE Confidence: 0.826421117666667  
00:03:06.310 --> 00:03:08.006 consider radiation plus chemo.  
NOTE Confidence: 0.826421117666667  
00:03:08.010 --> 00:03:10.728 Extensive is just systemic therapy and  
NOTE Confidence: 0.826421117666667  
00:03:10.728 --> 00:03:14.554 and that's a little bit different from the  
NOTE Confidence: 0.826421117666667  
00:03:14.554 --> 00:03:18.168 TNM staging that we use in in non small cell.  
NOTE Confidence: 0.826421117666667

00:03:18.170 --> 00:03:20.550 We still collect this information  
NOTE Confidence: 0.826421117666667

00:03:20.550 --> 00:03:22.850 on tumor nodes and metastases.  
NOTE Confidence: 0.826421117666667

00:03:22.850 --> 00:03:25.020 It's important for our trials,  
NOTE Confidence: 0.826421117666667

00:03:25.020 --> 00:03:27.386 but it it doesn't guide the treatment  
NOTE Confidence: 0.826421117666667

00:03:27.386 --> 00:03:29.998 in the same way as non small cell.  
NOTE Confidence: 0.826421117666667

00:03:30.000 --> 00:03:32.424 But we still collect that because  
NOTE Confidence: 0.826421117666667

00:03:32.424 --> 00:03:34.800 it's really important for prognosis.  
NOTE Confidence: 0.826421117666667

00:03:34.800 --> 00:03:38.256 So if you look at limited stage disease,  
NOTE Confidence: 0.826421117666667

00:03:38.260 --> 00:03:40.948 those patients who are again so you know  
NOTE Confidence: 0.826421117666667

00:03:40.948 --> 00:03:43.207 you could imagine a radiation portal,  
NOTE Confidence: 0.826421117666667

00:03:43.207 --> 00:03:44.952 including a tumor that's in  
NOTE Confidence: 0.826421117666667

00:03:44.952 --> 00:03:46.459 one part of the lung.  
NOTE Confidence: 0.826421117666667

00:03:46.460 --> 00:03:48.805 Maybe some of the lymph nodes involved  
NOTE Confidence: 0.826421117666667

00:03:48.805 --> 00:03:50.798 sometimes are radox are really good.  
NOTE Confidence: 0.826421117666667

00:03:50.800 --> 00:03:52.174 They can get to some lymph  
NOTE Confidence: 0.826421117666667

00:03:52.174 --> 00:03:53.400 nodes on the other side,

NOTE Confidence: 0.826421117666667  
00:03:53.400 --> 00:03:56.890 but if you had fluid.  
NOTE Confidence: 0.826421117666667  
00:03:56.890 --> 00:04:00.621 You're not going to be able to  
NOTE Confidence: 0.826421117666667  
00:04:00.621 --> 00:04:02.600 definitively radiate fluid or.  
NOTE Confidence: 0.826421117666667  
00:04:02.600 --> 00:04:06.087 You know involvement in other organs or  
NOTE Confidence: 0.826421117666667  
00:04:06.087 --> 00:04:08.850 lots of disease on on both sides just can't.  
NOTE Confidence: 0.826421117666667  
00:04:08.850 --> 00:04:10.560 Just too much of that radiation  
NOTE Confidence: 0.826421117666667  
00:04:10.560 --> 00:04:11.700 field is too much,  
NOTE Confidence: 0.826421117666667  
00:04:11.700 --> 00:04:15.354 so if you're limited and you can  
NOTE Confidence: 0.826421117666667  
00:04:15.354 --> 00:04:18.438 treat by sterilization with with them.  
NOTE Confidence: 0.826421117666667  
00:04:18.440 --> 00:04:20.628 Radiation and concurrent chemotherapy.  
NOTE Confidence: 0.826421117666667  
00:04:20.628 --> 00:04:23.364 Then the median survival, and these.  
NOTE Confidence: 0.826421117666667  
00:04:23.364 --> 00:04:24.996 These are changing a little bit.  
NOTE Confidence: 0.826421117666667  
00:04:25.000 --> 00:04:27.236 This is more historical.  
NOTE Confidence: 0.826421117666667  
00:04:27.236 --> 00:04:32.872 Is is 16 to 20 you know 16 to 24 months.  
NOTE Confidence: 0.826421117666667  
00:04:32.872 --> 00:04:34.576 There are some people.  
NOTE Confidence: 0.826421117666667

00:04:34.580 --> 00:04:37.668 This is the aim here for limited stage  
NOTE Confidence: 0.826421117666667

00:04:37.668 --> 00:04:40.934 is still curative so you do have some  
NOTE Confidence: 0.826421117666667

00:04:40.934 --> 00:04:43.858 patients who are are out five years.  
NOTE Confidence: 0.826421117666667

00:04:43.860 --> 00:04:46.636 You know this is somewhere around 15 to  
NOTE Confidence: 0.826421117666667

00:04:46.640 --> 00:04:50.056 25% of those patients are still alive.  
NOTE Confidence: 0.826421117666667

00:04:50.060 --> 00:04:52.075 As opposed to metastatic or  
NOTE Confidence: 0.826421117666667

00:04:52.075 --> 00:04:53.284 extensive stage disease,  
NOTE Confidence: 0.826421117666667

00:04:53.290 --> 00:04:55.276 I guess I should have said  
NOTE Confidence: 0.826421117666667

00:04:55.276 --> 00:04:57.064 extensive here and this traditional.  
NOTE Confidence: 0.826421117666667

00:04:57.064 --> 00:04:57.528 Historically,  
NOTE Confidence: 0.826421117666667

00:04:57.528 --> 00:05:00.312 the median survival has been pretty  
NOTE Confidence: 0.826421117666667

00:05:00.312 --> 00:05:03.976 dismal around 12 months and almost  
NOTE Confidence: 0.826421117666667

00:05:03.976 --> 00:05:06.280 no no patients making it out to to  
NOTE Confidence: 0.826421117666667

00:05:06.348 --> 00:05:08.766 two years and treated with systemic  
NOTE Confidence: 0.826421117666667

00:05:08.766 --> 00:05:11.540 treatment that goes through your bloodstream.  
NOTE Confidence: 0.826421117666667

00:05:11.540 --> 00:05:13.913 This is changing and I'll show you

NOTE Confidence: 0.826421117666667  
00:05:13.913 --> 00:05:17.170 some of that data which is really exciting.  
NOTE Confidence: 0.826421117666667  
00:05:17.170 --> 00:05:21.418 So this is a review that.  
NOTE Confidence: 0.826421117666667  
00:05:21.420 --> 00:05:24.048 Matt did when he was a fellow here and  
NOTE Confidence: 0.826421117666667  
00:05:24.048 --> 00:05:26.841 and this is it just shows you that  
NOTE Confidence: 0.826421117666667  
00:05:26.841 --> 00:05:29.150 through the decades there really few  
NOTE Confidence: 0.826421117666667  
00:05:29.150 --> 00:05:31.670 and far between major milestones and  
NOTE Confidence: 0.826421117666667  
00:05:31.670 --> 00:05:34.727 small so they had to do with chemotherapy,  
NOTE Confidence: 0.826421117666667  
00:05:34.730 --> 00:05:35.231 cisplatin,  
NOTE Confidence: 0.826421117666667  
00:05:35.231 --> 00:05:35.732 etoposide,  
NOTE Confidence: 0.826421117666667  
00:05:35.732 --> 00:05:39.239 the regimen that we still use was  
NOTE Confidence: 0.826421117666667  
00:05:39.239 --> 00:05:41.420 developed in the 19 in 1990.  
NOTE Confidence: 0.763120001333333  
00:05:43.840 --> 00:05:46.955 At our 1986 and you know here  
NOTE Confidence: 0.763120001333333  
00:05:46.955 --> 00:05:49.905 the big milestone was using  
NOTE Confidence: 0.763120001333333  
00:05:49.905 --> 00:05:52.823 prophylactic cranial radiation or  
NOTE Confidence: 0.763120001333333  
00:05:52.823 --> 00:05:54.752 thoracic radiation consolidation.  
NOTE Confidence: 0.763120001333333

00:05:54.752 --> 00:05:58.610 But now in the past two  
NOTE Confidence: 0.7631200013333333

00:05:58.721 --> 00:06:01.770 years there have been. 3.  
NOTE Confidence: 0.8158552733333333

00:06:04.440 --> 00:06:06.680 3 regiments that are FDA  
NOTE Confidence: 0.8158552733333333

00:06:06.680 --> 00:06:08.472 have been FDA approved.  
NOTE Confidence: 0.8158552733333333

00:06:08.480 --> 00:06:09.749 Actually, they've been.  
NOTE Confidence: 0.8158552733333333

00:06:09.749 --> 00:06:11.948 Sort of more, but then some of  
NOTE Confidence: 0.8158552733333333

00:06:11.948 --> 00:06:13.633 them have been pulled back and I'll  
NOTE Confidence: 0.8158552733333333

00:06:13.633 --> 00:06:15.320 talk a little bit more about that,  
NOTE Confidence: 0.8158552733333333

00:06:15.320 --> 00:06:17.413 so I'm going to talk about first  
NOTE Confidence: 0.8158552733333333

00:06:17.413 --> 00:06:19.387 the two trials that have changed  
NOTE Confidence: 0.8158552733333333

00:06:19.387 --> 00:06:21.409 the how patients are treated in  
NOTE Confidence: 0.8158552733333333

00:06:21.409 --> 00:06:23.785 the frontline therapy in frontline  
NOTE Confidence: 0.8158552733333333

00:06:23.785 --> 00:06:25.757 therapy when they're diagnosed.  
NOTE Confidence: 0.8158552733333333

00:06:25.760 --> 00:06:27.194 But I thought what I'd start  
NOTE Confidence: 0.8158552733333333

00:06:27.194 --> 00:06:29.040 out is is with a patient case.  
NOTE Confidence: 0.8158552733333333

00:06:29.040 --> 00:06:31.560 So you sort of see how how this

NOTE Confidence: 0.815855273333333  
00:06:31.560 --> 00:06:33.200 patient will present when,  
NOTE Confidence: 0.815855273333333  
00:06:33.200 --> 00:06:36.809 when when I meet them and and sort of  
NOTE Confidence: 0.815855273333333  
00:06:36.809 --> 00:06:39.720 their story. So this is my patient.  
NOTE Confidence: 0.815855273333333  
00:06:39.720 --> 00:06:42.584 It's an 83 year old African American woman.  
NOTE Confidence: 0.815855273333333  
00:06:42.590 --> 00:06:44.977 She had a 40 pack year tobacco  
NOTE Confidence: 0.815855273333333  
00:06:44.977 --> 00:06:47.570 history and she presented 2 years  
NOTE Confidence: 0.815855273333333  
00:06:47.570 --> 00:06:49.697 ago with weight loss, worsening,  
NOTE Confidence: 0.815855273333333  
00:06:49.697 --> 00:06:51.158 shortness of breath,  
NOTE Confidence: 0.815855273333333  
00:06:51.158 --> 00:06:53.106 abdominal discomfort and then  
NOTE Confidence: 0.815855273333333  
00:06:53.106 --> 00:06:54.490 on physical exam.  
NOTE Confidence: 0.815855273333333  
00:06:54.490 --> 00:06:57.466 She had lymph nodes in her neck and  
NOTE Confidence: 0.815855273333333  
00:06:57.466 --> 00:07:00.073 her right armpit and this is her  
NOTE Confidence: 0.815855273333333  
00:07:00.073 --> 00:07:03.398 pet scan and you can see this big  
NOTE Confidence: 0.815855273333333  
00:07:03.398 --> 00:07:05.828 very hyper metabolic active hyper.  
NOTE Confidence: 0.815855273333333  
00:07:05.830 --> 00:07:09.960 Very pet avid right? Lower low mass.  
NOTE Confidence: 0.815855273333333

00:07:09.960 --> 00:07:11.576 Some other tumor nodules.  
NOTE Confidence: 0.8158552733333333

00:07:11.576 --> 00:07:14.501 There lots of lymph nodes that you  
NOTE Confidence: 0.8158552733333333

00:07:14.501 --> 00:07:17.039 can't see in this particular section.  
NOTE Confidence: 0.8158552733333333

00:07:17.040 --> 00:07:19.427 Her brain MRI was negative and a  
NOTE Confidence: 0.8158552733333333

00:07:19.427 --> 00:07:22.184 biopsy of her lymph node showed small  
NOTE Confidence: 0.8158552733333333

00:07:22.184 --> 00:07:24.598 cell that was positive for these markers.  
NOTE Confidence: 0.8158552733333333

00:07:24.600 --> 00:07:26.452 And this is Ki.  
NOTE Confidence: 0.8158552733333333

00:07:26.452 --> 00:07:28.767 67 is a marker of  
NOTE Confidence: 0.8158552733333333

00:07:28.767 --> 00:07:30.721 proliferation and that's 90%.  
NOTE Confidence: 0.8158552733333333

00:07:30.721 --> 00:07:33.929 That means 90% of the tumor cells in  
NOTE Confidence: 0.8158552733333333

00:07:33.929 --> 00:07:37.037 that underneath the scope and that.  
NOTE Confidence: 0.8158552733333333

00:07:37.040 --> 00:07:39.200 In that section are dividing,  
NOTE Confidence: 0.8158552733333333

00:07:39.200 --> 00:07:40.780 so that's why these are.  
NOTE Confidence: 0.8158552733333333

00:07:40.780 --> 00:07:44.205 They're really sensitive to chemotherapy  
NOTE Confidence: 0.8158552733333333

00:07:44.205 --> 00:07:47.630 because they're dividing so quickly.  
NOTE Confidence: 0.8158552733333333

00:07:47.630 --> 00:07:49.849 So how would you treat this patient?

NOTE Confidence: 0.815855273333333  
00:07:49.850 --> 00:07:50.220 Well,  
NOTE Confidence: 0.815855273333333  
00:07:50.220 --> 00:07:52.810 if this patient is in the hospital,  
NOTE Confidence: 0.815855273333333  
00:07:52.810 --> 00:07:55.040 then we typically treat this  
NOTE Confidence: 0.815855273333333  
00:07:55.040 --> 00:07:56.378 patient with chemotherapy,  
NOTE Confidence: 0.815855273333333  
00:07:56.380 --> 00:08:01.066 and we specifically probably Carbo etoposide,  
NOTE Confidence: 0.815855273333333  
00:08:01.070 --> 00:08:02.176 potentially etoposide,  
NOTE Confidence: 0.815855273333333  
00:08:02.176 --> 00:08:06.047 and we would not add that that  
NOTE Confidence: 0.815855273333333  
00:08:06.050 --> 00:08:08.006 immunotherapy until their second cycle or  
NOTE Confidence: 0.815855273333333  
00:08:08.006 --> 00:08:10.459 or after they come out of the hospital.  
NOTE Confidence: 0.804563631818182  
00:08:12.710 --> 00:08:16.010 If I meet them, if I meet them in the office,  
NOTE Confidence: 0.804563631818182  
00:08:16.010 --> 00:08:17.870 both of these regiments, being C,  
NOTE Confidence: 0.804563631818182  
00:08:17.870 --> 00:08:22.303 have been BC&amp;D actually have been  
approved.  
NOTE Confidence: 0.804563631818182  
00:08:22.303 --> 00:08:27.430 The fee is the Empower 133 trial  
NOTE Confidence: 0.804563631818182  
00:08:27.430 --> 00:08:29.194 CD's are the Caspian trial trial and  
NOTE Confidence: 0.804563631818182  
00:08:29.194 --> 00:08:30.948 I'll show that to you in a moment.

NOTE Confidence: 0.912765194285714  
00:08:33.700 --> 00:08:36.647 So actually, all of these are correct.  
NOTE Confidence: 0.912765194285714  
00:08:36.650 --> 00:08:40.482 OK, so let's look at the Empower 133 trial.  
NOTE Confidence: 0.912765194285714  
00:08:40.482 --> 00:08:42.466 So for this trial,  
NOTE Confidence: 0.912765194285714  
00:08:42.470 --> 00:08:44.660 the patients who are newly diagnosed,  
NOTE Confidence: 0.912765194285714  
00:08:44.660 --> 00:08:47.324 they hadn't gotten any treatment yet  
NOTE Confidence: 0.912765194285714  
00:08:47.324 --> 00:08:50.049 and they were randomized to two arms.  
NOTE Confidence: 0.912765194285714  
00:08:50.050 --> 00:08:53.298 One is the standard of care carboplatinum,  
NOTE Confidence: 0.912765194285714  
00:08:53.300 --> 00:08:55.958 etoposide, plus placebo and then the  
NOTE Confidence: 0.912765194285714  
00:08:55.958 --> 00:08:58.810 other is chemo plus atezolizumab and  
NOTE Confidence: 0.912765194285714  
00:08:58.810 --> 00:09:01.750 then followed by maintenance ateso or  
NOTE Confidence: 0.912765194285714  
00:09:01.828 --> 00:09:03.788 placebo treating until progression  
NOTE Confidence: 0.912765194285714  
00:09:03.788 --> 00:09:06.728 of disease or loss of benefit.  
NOTE Confidence: 0.912765194285714  
00:09:06.730 --> 00:09:09.747 And so. This trial this is the  
NOTE Confidence: 0.912765194285714  
00:09:09.747 --> 00:09:12.747 Kaplan Meier curve and this is what  
NOTE Confidence: 0.912765194285714  
00:09:12.747 --> 00:09:15.171 we look at for over survival.  
NOTE Confidence: 0.912765194285714

00:09:15.180 --> 00:09:18.526 The the blue is the arm with  
NOTE Confidence: 0.912765194285714

00:09:18.526 --> 00:09:19.960 the immunotherapy atezolizumab.  
NOTE Confidence: 0.912765194285714

00:09:19.960 --> 00:09:22.480 The red is the placebo and what we're  
NOTE Confidence: 0.912765194285714

00:09:22.480 --> 00:09:24.751 looking for in this kind of curve  
NOTE Confidence: 0.912765194285714

00:09:24.751 --> 00:09:26.893 is a difference between the arms  
NOTE Confidence: 0.912765194285714

00:09:26.893 --> 00:09:28.897 that is statistically significant.  
NOTE Confidence: 0.912765194285714

00:09:28.900 --> 00:09:30.489 Now if you look at there's two  
NOTE Confidence: 0.912765194285714

00:09:30.489 --> 00:09:32.078 ways to look at these curves.  
NOTE Confidence: 0.912765194285714

00:09:32.080 --> 00:09:35.000 OK, one is we look at the median  
NOTE Confidence: 0.912765194285714

00:09:35.000 --> 00:09:37.122 overall survival for all the  
NOTE Confidence: 0.912765194285714

00:09:37.122 --> 00:09:38.870 patients in the experimental.  
NOTE Confidence: 0.912765194285714

00:09:38.870 --> 00:09:41.362 Arm versus placebo and you can see  
NOTE Confidence: 0.912765194285714

00:09:41.362 --> 00:09:43.668 that those patients on average lived  
NOTE Confidence: 0.912765194285714

00:09:43.668 --> 00:09:45.608 two months more than placebos.  
NOTE Confidence: 0.912765194285714

00:09:45.610 --> 00:09:47.465 Even like, well, two months is that.  
NOTE Confidence: 0.912765194285714

00:09:47.470 --> 00:09:48.634 I mean, yes,

NOTE Confidence: 0.912765194285714

00:09:48.634 --> 00:09:50.962 it's it's important and it's significant.

NOTE Confidence: 0.912765194285714

00:09:50.970 --> 00:09:53.609 But what we're really looking at with

NOTE Confidence: 0.912765194285714

00:09:53.609 --> 00:09:55.622 immunotherapy is whether we can really

NOTE Confidence: 0.912765194285714

00:09:55.622 --> 00:09:58.269 change what we call the tail of this curve.

NOTE Confidence: 0.912765194285714

00:09:58.270 --> 00:10:01.546 So as time goes out in months,

NOTE Confidence: 0.912765194285714

00:10:01.550 --> 00:10:06.290 will more and more of these patients exhibit.

NOTE Confidence: 0.912765194285714

00:10:06.290 --> 00:10:09.244 Benefit because we've sort of taught their

NOTE Confidence: 0.912765194285714

00:10:09.244 --> 00:10:11.742 immune system to recognize cancer cells

NOTE Confidence: 0.912765194285714

00:10:11.742 --> 00:10:15.450 and and and and and continue to destroy them.

NOTE Confidence: 0.912765194285714

00:10:15.450 --> 00:10:18.026 So that's why these this sort of

NOTE Confidence: 0.912765194285714

00:10:18.026 --> 00:10:20.589 what's called a landmark analysis.

NOTE Confidence: 0.912765194285714

00:10:20.590 --> 00:10:22.126 So at one mark,

NOTE Confidence: 0.912765194285714

00:10:22.126 --> 00:10:24.963 so landmark at 12 year at 12

NOTE Confidence: 0.912765194285714

00:10:24.963 --> 00:10:26.687 months or 18 months,

NOTE Confidence: 0.912765194285714

00:10:26.690 --> 00:10:27.770 you look at the difference.

NOTE Confidence: 0.912765194285714

00:10:27.770 --> 00:10:30.710 Here's 34 at 18 months,  
NOTE Confidence: 0.912765194285714

00:10:30.710 --> 00:10:32.774 34% of the patients are alive  
NOTE Confidence: 0.912765194285714

00:10:32.774 --> 00:10:35.428 versus 21 on the placebo and and.  
NOTE Confidence: 0.912765194285714

00:10:35.430 --> 00:10:36.420 And I want you to.  
NOTE Confidence: 0.912765194285714

00:10:36.420 --> 00:10:39.588 This is important because as we move out,  
NOTE Confidence: 0.912765194285714

00:10:39.590 --> 00:10:42.310 you'll see for the Caspian trial we have  
NOTE Confidence: 0.912765194285714

00:10:42.310 --> 00:10:44.989 three year data that's really promising.  
NOTE Confidence: 0.912765194285714

00:10:44.990 --> 00:10:48.788 OK, so that's any questions on that so far.  
NOTE Confidence: 0.912765194285714

00:10:48.790 --> 00:10:50.390 I know I'm throwing a lot of stuff to you,  
NOTE Confidence: 0.912765194285714

00:10:50.390 --> 00:10:52.163 but you know this is stuff for you guys.  
NOTE Confidence: 0.912765194285714

00:10:52.170 --> 00:10:54.610 Put patients on this trial on these trials  
NOTE Confidence: 0.912765194285714

00:10:54.610 --> 00:10:57.418 so this is showing you the results of that.  
NOTE Confidence: 0.912765194285714

00:10:57.420 --> 00:10:58.800 Any questions so far?  
NOTE Confidence: 0.847703178333333

00:11:00.870 --> 00:11:03.726 I'm going to pick on somebody.  
NOTE Confidence: 0.847703178333333

00:11:03.730 --> 00:11:05.218 Omar, any questions?  
NOTE Confidence: 0.815915758

00:11:07.580 --> 00:11:09.886 No, not yet doctor change your.

NOTE Confidence: 0.815915758

00:11:09.886 --> 00:11:13.134 Is this making sense to you so far?

NOTE Confidence: 0.815915758

00:11:13.140 --> 00:11:15.760 Yes OK, OK thank you.

NOTE Confidence: 0.815915758

00:11:15.760 --> 00:11:17.248 Thank you for answering.

NOTE Confidence: 0.815915758

00:11:17.248 --> 00:11:20.002 OK so then this this is the

NOTE Confidence: 0.815915758

00:11:20.002 --> 00:11:22.198 next question here, you know?

NOTE Confidence: 0.815915758

00:11:22.198 --> 00:11:24.343 This patient had excellent response

NOTE Confidence: 0.815915758

00:11:24.343 --> 00:11:27.230 to four cycles of treatment and

NOTE Confidence: 0.815915758

00:11:27.230 --> 00:11:29.262 then she continues maintenance

NOTE Confidence: 0.815915758

00:11:29.262 --> 00:11:31.251 on monthly atezolizumab and

NOTE Confidence: 0.815915758

00:11:31.251 --> 00:11:33.216 the the teaser was tolerated.

NOTE Confidence: 0.815915758

00:11:33.220 --> 00:11:35.608 Well, except for she did have

NOTE Confidence: 0.815915758

00:11:35.608 --> 00:11:37.731 immunotherapy induced rash that was

NOTE Confidence: 0.815915758

00:11:37.731 --> 00:11:40.016 controlled with steroid topical cream.

NOTE Confidence: 0.815915758

00:11:40.020 --> 00:11:41.988 So she's now in cycle nine

NOTE Confidence: 0.815915758

00:11:41.988 --> 00:11:43.300 of monthly at Tiso.

NOTE Confidence: 0.815915758

00:11:43.300 --> 00:11:44.968 How long do we continue this?  
NOTE Confidence: 0.840167001666667

00:11:47.110 --> 00:11:49.066 Had nice response. See remember that  
NOTE Confidence: 0.840167001666667

00:11:49.066 --> 00:11:50.990 that right lower lobe down here.  
NOTE Confidence: 0.840167001666667

00:11:50.990 --> 00:11:54.039 That's gotten a lot better and and so  
NOTE Confidence: 0.840167001666667

00:11:54.039 --> 00:11:57.280 of course the the length of maintenance  
NOTE Confidence: 0.840167001666667

00:11:57.376 --> 00:12:00.584 therapy has to do with how well the  
NOTE Confidence: 0.840167001666667

00:12:00.584 --> 00:12:02.722 the treatment is tolerated, right?  
NOTE Confidence: 0.840167001666667

00:12:02.722 --> 00:12:05.912 So that's why we ask and collect  
NOTE Confidence: 0.840167001666667

00:12:05.912 --> 00:12:08.432 information around safety and adverse  
NOTE Confidence: 0.840167001666667

00:12:08.432 --> 00:12:11.895 events and so this basically shows you  
NOTE Confidence: 0.840167001666667

00:12:11.895 --> 00:12:14.430 the difference between the ateso arm,  
NOTE Confidence: 0.840167001666667

00:12:14.430 --> 00:12:16.440 the experimental arm and then  
NOTE Confidence: 0.840167001666667

00:12:16.440 --> 00:12:17.646 the placebo arm.  
NOTE Confidence: 0.840167001666667

00:12:17.650 --> 00:12:19.480 Is basically exactly the same.  
NOTE Confidence: 0.840167001666667

00:12:19.480 --> 00:12:21.210 This is kind of interesting  
NOTE Confidence: 0.840167001666667

00:12:21.210 --> 00:12:23.360 to me because here you know,

NOTE Confidence: 0.840167001666667  
00:12:23.360 --> 00:12:24.975 because you you don't know  
NOTE Confidence: 0.840167001666667  
00:12:24.975 --> 00:12:27.160 whether you're on drug or placebo.  
NOTE Confidence: 0.840167001666667  
00:12:27.160 --> 00:12:30.072 You can see in the placebo arm people  
NOTE Confidence: 0.840167001666667  
00:12:30.072 --> 00:12:32.476 are still reporting treatment related AE  
NOTE Confidence: 0.840167001666667  
00:12:32.476 --> 00:12:35.600 even though we know they're not getting.  
NOTE Confidence: 0.840167001666667  
00:12:35.600 --> 00:12:37.496 They're just getting placebo,  
NOTE Confidence: 0.840167001666667  
00:12:37.496 --> 00:12:39.392 but they're actually relating  
NOTE Confidence: 0.840167001666667  
00:12:39.392 --> 00:12:41.170 grade 3/4 events too.  
NOTE Confidence: 0.840167001666667  
00:12:41.170 --> 00:12:43.354 You know to their adverse events so  
NOTE Confidence: 0.840167001666667  
00:12:43.354 --> 00:12:45.758 that that I think is interesting,  
NOTE Confidence: 0.840167001666667  
00:12:45.760 --> 00:12:47.252 but on the whole,  
NOTE Confidence: 0.840167001666667  
00:12:47.252 --> 00:12:49.117 this is pretty pretty much  
NOTE Confidence: 0.840167001666667  
00:12:49.117 --> 00:12:50.940 well tolerated the the,  
NOTE Confidence: 0.840167001666667  
00:12:50.940 --> 00:12:54.095 the median duration of ateso  
NOTE Confidence: 0.840167001666667  
00:12:54.095 --> 00:12:56.930 treatment was 4.7 months.  
NOTE Confidence: 0.840167001666667

00:12:56.930 --> 00:12:59.994 The median treatment duration of  
NOTE Confidence: 0.840167001666667

00:12:59.994 --> 00:13:02.982 placebo was about the same and  
NOTE Confidence: 0.840167001666667

00:13:02.982 --> 00:13:05.423 the cumulative doses of baptizo  
NOTE Confidence: 0.840167001666667

00:13:05.423 --> 00:13:08.560 you got about 7 doses of it.  
NOTE Confidence: 0.840167001666667

00:13:08.560 --> 00:13:11.412 So what what this says to me, is that OK?  
NOTE Confidence: 0.840167001666667

00:13:11.412 --> 00:13:13.356 These arms are pretty well balanced,  
NOTE Confidence: 0.840167001666667

00:13:13.360 --> 00:13:15.208 and it's pretty well, you know,  
NOTE Confidence: 0.840167001666667

00:13:15.210 --> 00:13:18.031 there's not a major safety concern in  
NOTE Confidence: 0.840167001666667

00:13:18.031 --> 00:13:21.178 in in adding the adhesiveness about.  
NOTE Confidence: 0.840167001666667

00:13:21.180 --> 00:13:25.090 OK. So.  
NOTE Confidence: 0.840167001666667

00:13:25.090 --> 00:13:27.166 This is another patient of mine,  
NOTE Confidence: 0.840167001666667

00:13:27.170 --> 00:13:28.518 and in this case,  
NOTE Confidence: 0.840167001666667

00:13:28.518 --> 00:13:32.229 and this is again how he presented all right.  
NOTE Confidence: 0.840167001666667

00:13:32.230 --> 00:13:36.390 So he presented last spring 67 year old,  
NOTE Confidence: 0.840167001666667

00:13:36.390 --> 00:13:39.450 50 pack year tobacco history with  
NOTE Confidence: 0.840167001666667

00:13:39.450 --> 00:13:41.250 weight loss over several months.

NOTE Confidence: 0.840167001666667  
00:13:41.250 --> 00:13:42.258 Difficulty eating.  
NOTE Confidence: 0.840167001666667  
00:13:42.258 --> 00:13:44.526 That's a dysphagia, or swallowing,  
NOTE Confidence: 0.840167001666667  
00:13:44.526 --> 00:13:46.038 worsening shortness of breath  
NOTE Confidence: 0.840167001666667  
00:13:46.038 --> 00:13:47.550 on exertion and weakness,  
NOTE Confidence: 0.840167001666667  
00:13:47.550 --> 00:13:50.996 and so the CAT scan that he had  
NOTE Confidence: 0.840167001666667  
00:13:50.996 --> 00:13:52.811 showed a very bulky mediastinal  
NOTE Confidence: 0.840167001666667  
00:13:52.811 --> 00:13:55.539 mask that was extending into the SVC  
NOTE Confidence: 0.840167001666667  
00:13:55.539 --> 00:13:57.885 in the right upper lobe bronchus,  
NOTE Confidence: 0.840167001666667  
00:13:57.890 --> 00:14:00.848 and he had bulky lymph nodes  
NOTE Confidence: 0.840167001666667  
00:14:00.850 --> 00:14:02.306 and multiple satellite nodules.  
NOTE Confidence: 0.840167001666667  
00:14:02.306 --> 00:14:04.490 Throughout the right lung and then  
NOTE Confidence: 0.840167001666667  
00:14:04.552 --> 00:14:07.622 you see here. OK the brain MRI.  
NOTE Confidence: 0.840167001666667  
00:14:07.622 --> 00:14:10.311 Numerous sub center meteor lesions  
NOTE Confidence: 0.840167001666667  
00:14:10.311 --> 00:14:12.959 and and this is very typical of our  
NOTE Confidence: 0.840167001666667  
00:14:12.959 --> 00:14:15.156 small cell patients that this that  
NOTE Confidence: 0.840167001666667

00:14:15.156 --> 00:14:17.699 they will have spread to the brain.  
NOTE Confidence: 0.840167001666667

00:14:17.700 --> 00:14:21.150 So he also underwent a biopsy.  
NOTE Confidence: 0.840167001666667

00:14:21.150 --> 00:14:23.070 And do a bronchial ultrasound and  
NOTE Confidence: 0.840167001666667

00:14:23.070 --> 00:14:25.302 biopsy of the right upper lung node  
NOTE Confidence: 0.840167001666667

00:14:25.302 --> 00:14:27.374 will and the lymph nodes and that  
NOTE Confidence: 0.840167001666667

00:14:27.437 --> 00:14:29.247 showed small cell lung cancer.  
NOTE Confidence: 0.840167001666667

00:14:29.250 --> 00:14:32.246 So what's the next step in treatment?  
NOTE Confidence: 0.840167001666667

00:14:32.250 --> 00:14:33.642 So in this case,  
NOTE Confidence: 0.840167001666667

00:14:33.642 --> 00:14:35.730 I'll just mention this because it  
NOTE Confidence: 0.840167001666667

00:14:35.808 --> 00:14:38.104 comes up if you don't have symptoms  
NOTE Confidence: 0.840167001666667

00:14:38.104 --> 00:14:41.387 then we can start with the systemic therapy.  
NOTE Confidence: 0.840167001666667

00:14:41.390 --> 00:14:43.400 If there are symptoms that are  
NOTE Confidence: 0.840167001666667

00:14:43.400 --> 00:14:45.265 concerning so you know focal  
NOTE Confidence: 0.840167001666667

00:14:45.265 --> 00:14:48.025 neurological symptoms or something like that,  
NOTE Confidence: 0.840167001666667

00:14:48.030 --> 00:14:50.858 then we might invoke or we might  
NOTE Confidence: 0.840167001666667

00:14:50.858 --> 00:14:53.136 utilize surgery or brain radiation

NOTE Confidence: 0.840167001666667  
00:14:53.136 --> 00:14:56.082 before we get started on the  
NOTE Confidence: 0.840167001666667  
00:14:56.082 --> 00:14:57.064 systemic therapy.  
NOTE Confidence: 0.840167001666667  
00:14:57.070 --> 00:14:58.034 So this is it,  
NOTE Confidence: 0.840167001666667  
00:14:58.034 --> 00:14:58.998 you know important distinction  
NOTE Confidence: 0.840167001666667  
00:14:58.998 --> 00:15:00.467 whether or not you have symptoms,  
NOTE Confidence: 0.840167001666667  
00:15:00.470 --> 00:15:00.870 obviously,  
NOTE Confidence: 0.840167001666667  
00:15:00.870 --> 00:15:04.070 but but this is the the other frontline  
NOTE Confidence: 0.840167001666667  
00:15:04.070 --> 00:15:06.894 trial that led to the standard of care,  
NOTE Confidence: 0.840167001666667  
00:15:06.900 --> 00:15:09.448 and this is called the Caspian and  
NOTE Confidence: 0.840167001666667  
00:15:09.448 --> 00:15:11.854 they actually did allow patients with  
NOTE Confidence: 0.840167001666667  
00:15:11.854 --> 00:15:14.745 asymptomatic brain Mets to go on trial.  
NOTE Confidence: 0.805361116428571  
00:15:14.750 --> 00:15:16.870 The previous trial that I told you about  
NOTE Confidence: 0.805361116428571  
00:15:16.870 --> 00:15:18.850 only allowed patients with treated brain,  
NOTE Confidence: 0.805361116428571  
00:15:18.850 --> 00:15:22.246 Mets, and and as you know,  
NOTE Confidence: 0.805361116428571  
00:15:22.250 --> 00:15:24.290 many of you who worked on my trial,  
NOTE Confidence: 0.805361116428571

00:15:24.290 --> 00:15:26.155 we do allow asymptomatic brain  
NOTE Confidence: 0.805361116428571

00:15:26.155 --> 00:15:28.020 Mets and that's something that.  
NOTE Confidence: 0.805361116428571

00:15:28.020 --> 00:15:31.233 We have to be very careful about to monitor,  
NOTE Confidence: 0.805361116428571

00:15:31.240 --> 00:15:32.927 but on the other hand you know  
NOTE Confidence: 0.805361116428571

00:15:32.927 --> 00:15:34.590 we do have good very good.  
NOTE Confidence: 0.897851115

00:15:36.810 --> 00:15:41.328 Good effect with with systemic therapy.  
NOTE Confidence: 0.897851115

00:15:41.330 --> 00:15:43.514 It's important to mention that because  
NOTE Confidence: 0.897851115

00:15:43.514 --> 00:15:46.069 you know there is a blood brain  
NOTE Confidence: 0.897851115

00:15:46.069 --> 00:15:48.133 barrier and there are other tumors  
NOTE Confidence: 0.897851115

00:15:48.133 --> 00:15:50.629 that are less chemotherapy sensitive.  
NOTE Confidence: 0.897851115

00:15:50.630 --> 00:15:53.416 But in this case small cell chemotherapy  
NOTE Confidence: 0.897851115

00:15:53.416 --> 00:15:56.730 works pretty well even in the brain.  
NOTE Confidence: 0.897851115

00:15:56.730 --> 00:15:59.506 So the Caspian study was again  
NOTE Confidence: 0.897851115

00:15:59.506 --> 00:16:01.474 patients who had been never treated,  
NOTE Confidence: 0.897851115

00:16:01.480 --> 00:16:02.695 just been diagnosed,  
NOTE Confidence: 0.897851115

00:16:02.695 --> 00:16:05.530 and they had a good performance status,

NOTE Confidence: 0.897851115

00:16:05.530 --> 00:16:09.110 and they had asymptomatic.

NOTE Confidence: 0.897851115

00:16:09.110 --> 00:16:11.515 Brain Mets or treated brain. Mets.

NOTE Confidence: 0.897851115

00:16:11.515 --> 00:16:14.770 And they there's a hundred 800 patients.

NOTE Confidence: 0.897851115

00:16:14.770 --> 00:16:19.229 Some 805 patients randomized to three arms,

NOTE Confidence: 0.897851115

00:16:19.230 --> 00:16:23.528 so this is durva plus chemo durva

NOTE Confidence: 0.897851115

00:16:23.528 --> 00:16:27.089 Treme plus chemo or just chemo

NOTE Confidence: 0.897851115

00:16:27.090 --> 00:16:31.440 followed by maintenance and so.

NOTE Confidence: 0.897851115

00:16:31.440 --> 00:16:34.392 The Durva Treme arm actually did

NOTE Confidence: 0.897851115

00:16:34.392 --> 00:16:37.223 not show any significant difference

NOTE Confidence: 0.897851115

00:16:37.223 --> 00:16:39.840 between when compared to the.

NOTE Confidence: 0.897851115

00:16:39.840 --> 00:16:41.220 The chemo placebo.

NOTE Confidence: 0.897851115

00:16:41.220 --> 00:16:42.412 Sorry the chemo arm.

NOTE Confidence: 0.897851115

00:16:42.412 --> 00:16:44.761 I'm not going to talk about that but

NOTE Confidence: 0.897851115

00:16:44.761 --> 00:16:47.092 I am going to show you the data for

NOTE Confidence: 0.897851115

00:16:47.092 --> 00:16:49.045 the durva arm in the next slide.

NOTE Confidence: 0.897851115

00:16:49.050 --> 00:16:50.166 So again, the chain,  
NOTE Confidence: 0.897851115

00:16:50.166 --> 00:16:51.840 can I ask a quick question  
NOTE Confidence: 0.897851115

00:16:51.901 --> 00:16:53.029 that's in the chat?  
NOTE Confidence: 0.897851115

00:16:53.030 --> 00:16:53.466 Yeah,  
NOTE Confidence: 0.897851115

00:16:53.466 --> 00:16:56.954 so I think it's for the previous patient,  
NOTE Confidence: 0.897851115

00:16:56.960 --> 00:16:58.995 but they said when you  
NOTE Confidence: 0.897851115

00:16:58.995 --> 00:17:00.623 mentioned if the patient.  
NOTE Confidence: 0.891015054444444

00:17:02.830 --> 00:17:05.200 You would give them chemo alone  
NOTE Confidence: 0.891015054444444

00:17:05.200 --> 00:17:06.385 and possibly immunotherapy.  
NOTE Confidence: 0.891015054444444

00:17:06.390 --> 00:17:09.206 Outpatient is that because  
NOTE Confidence: 0.891015054444444

00:17:09.206 --> 00:17:11.318 of insurance coverage.  
NOTE Confidence: 0.891015054444444

00:17:11.320 --> 00:17:15.149 You know the the that's exactly right,  
NOTE Confidence: 0.891015054444444

00:17:15.150 --> 00:17:17.610 so the the immunotherapy,  
NOTE Confidence: 0.891015054444444

00:17:17.610 --> 00:17:20.064 super expensive and it's something  
NOTE Confidence: 0.891015054444444

00:17:20.064 --> 00:17:22.906 that we don't expect to to make  
NOTE Confidence: 0.891015054444444

00:17:22.906 --> 00:17:24.926 a difference or very quickly,

NOTE Confidence: 0.891015054444444  
00:17:24.930 --> 00:17:26.160 at least in in our hands.  
NOTE Confidence: 0.891015054444444  
00:17:26.160 --> 00:17:28.446 I mean that the key thing is the chemo.  
NOTE Confidence: 0.891015054444444  
00:17:28.450 --> 00:17:30.472 So typically what we'll do is  
NOTE Confidence: 0.891015054444444  
00:17:30.472 --> 00:17:32.618 we'll get that for cycle started  
NOTE Confidence: 0.891015054444444  
00:17:32.618 --> 00:17:35.120 in house and then start the Prius.  
NOTE Confidence: 0.891015054444444  
00:17:35.120 --> 00:17:37.220 They can get immunotherapy with the  
NOTE Confidence: 0.891015054444444  
00:17:37.220 --> 00:17:39.650 second cycle there is a there is.  
NOTE Confidence: 0.891015054444444  
00:17:39.650 --> 00:17:41.750 This is relatively new there is.  
NOTE Confidence: 0.891015054444444  
00:17:41.750 --> 00:17:45.642 They that both the companies the sponsors  
NOTE Confidence: 0.891015054444444  
00:17:45.642 --> 00:17:49.040 applied for what's called an end tap.  
NOTE Confidence: 0.891015054444444  
00:17:49.040 --> 00:17:51.068 That's an additional reimbursement  
NOTE Confidence: 0.891015054444444  
00:17:51.068 --> 00:17:53.096 payment for inpatient use,  
NOTE Confidence: 0.891015054444444  
00:17:53.100 --> 00:17:55.466 but we haven't really gotten to the  
NOTE Confidence: 0.891015054444444  
00:17:55.466 --> 00:17:57.890 point where we're we're utilizing that,  
NOTE Confidence: 0.891015054444444  
00:17:57.890 --> 00:17:59.605 and there's no data that shows that  
NOTE Confidence: 0.891015054444444

00:17:59.605 --> 00:18:01.320 if you start with second cycle,  
NOTE Confidence: 0.8910150544444444

00:18:01.320 --> 00:18:04.440 it's any worse or better for that matter.  
NOTE Confidence: 0.8910150544444444

00:18:04.440 --> 00:18:08.226 So good question, really good question.  
NOTE Confidence: 0.8910150544444444

00:18:08.230 --> 00:18:11.110 OK, so this is the this is this  
NOTE Confidence: 0.8910150544444444

00:18:11.110 --> 00:18:13.387 Caspian study and this shows you  
NOTE Confidence: 0.8910150544444444

00:18:13.387 --> 00:18:16.080 the you know the the bottom line.  
NOTE Confidence: 0.8910150544444444

00:18:16.080 --> 00:18:18.590 This is an overall survival  
NOTE Confidence: 0.8910150544444444

00:18:18.590 --> 00:18:19.850 Kaplan Meier curve.  
NOTE Confidence: 0.8910150544444444

00:18:19.850 --> 00:18:22.370 And so what's really exciting about  
NOTE Confidence: 0.8910150544444444

00:18:22.370 --> 00:18:24.895 this and the first you know again,  
NOTE Confidence: 0.8910150544444444

00:18:24.900 --> 00:18:27.972 one metric is the median overall  
NOTE Confidence: 0.8910150544444444

00:18:27.972 --> 00:18:30.338 survival in the experimental arm,  
NOTE Confidence: 0.8910150544444444

00:18:30.338 --> 00:18:32.648 13 months versus 10 pretty  
NOTE Confidence: 0.8910150544444444

00:18:32.648 --> 00:18:35.346 much identical to the last one.  
NOTE Confidence: 0.8910150544444444

00:18:35.350 --> 00:18:37.130 What's really exciting is this  
NOTE Confidence: 0.8910150544444444

00:18:37.130 --> 00:18:38.198 was just presented.

NOTE Confidence: 0.891015054444444

00:18:38.200 --> 00:18:41.140 The updated analysis and at three years

NOTE Confidence: 0.891015054444444

00:18:41.140 --> 00:18:45.119 you can see how these curves are separating,

NOTE Confidence: 0.891015054444444

00:18:45.120 --> 00:18:48.151 so the blue or the patients who've

NOTE Confidence: 0.891015054444444

00:18:48.151 --> 00:18:50.958 been treated with chemo plus jurva.

NOTE Confidence: 0.891015054444444

00:18:50.960 --> 00:18:52.912 And at three years,

NOTE Confidence: 0.891015054444444

00:18:52.912 --> 00:18:58.702 18% of those are alive versus 6% when

NOTE Confidence: 0.891015054444444

00:18:58.702 --> 00:19:00.034 they were just treated with chemo.

NOTE Confidence: 0.891015054444444

00:19:00.040 --> 00:19:01.920 So this is pretty amazing.

NOTE Confidence: 0.891015054444444

00:19:01.920 --> 00:19:05.140 It's a tripling of the of the

NOTE Confidence: 0.891015054444444

00:19:05.140 --> 00:19:06.060 overall survival.

NOTE Confidence: 0.891015054444444

00:19:06.060 --> 00:19:08.377 I told you up front that historically

NOTE Confidence: 0.891015054444444

00:19:08.377 --> 00:19:11.408 most of the patients had like a less

NOTE Confidence: 0.891015054444444

00:19:11.408 --> 00:19:13.647 than two percent five year overall

NOTE Confidence: 0.891015054444444

00:19:13.647 --> 00:19:17.165 survival and and right now we're at 18%,

NOTE Confidence: 0.891015054444444

00:19:17.165 --> 00:19:20.630 so we're hoping that this this bears out now.

NOTE Confidence: 0.891015054444444

00:19:20.630 --> 00:19:20.945 Understandably,  
NOTE Confidence: 0.891015054444444

00:19:20.945 --> 00:19:23.150 this means there are a lot of  
NOTE Confidence: 0.891015054444444

00:19:23.150 --> 00:19:24.945 patients who have who have died  
NOTE Confidence: 0.891015054444444

00:19:24.945 --> 00:19:26.607 who are not seeing this benefit,  
NOTE Confidence: 0.891015054444444

00:19:26.610 --> 00:19:27.918 and so that's why we're so,  
NOTE Confidence: 0.891015054444444

00:19:27.920 --> 00:19:28.516 you know,  
NOTE Confidence: 0.891015054444444

00:19:28.516 --> 00:19:30.602 we're so active and in trying to  
NOTE Confidence: 0.891015054444444

00:19:30.602 --> 00:19:32.828 do more research to understand.  
NOTE Confidence: 0.875870875

00:19:35.060 --> 00:19:36.775 Understand who who can benefit  
NOTE Confidence: 0.875870875

00:19:36.775 --> 00:19:39.489 and how to how to improve that.  
NOTE Confidence: 0.875870875

00:19:39.490 --> 00:19:41.260 How to get more people to  
NOTE Confidence: 0.875870875

00:19:41.260 --> 00:19:42.440 benefit from these therapies?  
NOTE Confidence: 0.922880778571429

00:19:46.230 --> 00:19:48.855 Again, if you look at both arms,  
NOTE Confidence: 0.922880778571429

00:19:48.860 --> 00:19:51.052 there's really very little  
NOTE Confidence: 0.922880778571429

00:19:51.052 --> 00:19:52.684 difference in the serious ages,  
NOTE Confidence: 0.922880778571429

00:19:52.684 --> 00:19:55.052 and there are, you know, pretty pretty.

NOTE Confidence: 0.922880778571429  
00:19:55.052 --> 00:19:58.235 You know 5% or lower in in terms  
NOTE Confidence: 0.922880778571429  
00:19:58.235 --> 00:20:00.960 of the the the serious one, so.  
NOTE Confidence: 0.803241617142857  
00:20:03.720 --> 00:20:06.424 Oops, go back. So these are those two  
NOTE Confidence: 0.803241617142857  
00:20:06.424 --> 00:20:08.939 trials I just covered the Empower  
NOTE Confidence: 0.803241617142857  
00:20:08.940 --> 00:20:12.853 133 with a tizo Caspian with durva  
NOTE Confidence: 0.803241617142857  
00:20:12.853 --> 00:20:16.015 again the median overall survival  
NOTE Confidence: 0.803241617142857  
00:20:16.015 --> 00:20:20.125 very similar and the the Caspian.  
NOTE Confidence: 0.803241617142857  
00:20:20.130 --> 00:20:22.938 Showing that three year overall survival  
NOTE Confidence: 0.803241617142857  
00:20:22.938 --> 00:20:25.990 data, the difference in terms of the  
NOTE Confidence: 0.803241617142857  
00:20:25.990 --> 00:20:27.710 Caspian allowing asymptomatic brain,  
NOTE Confidence: 0.803241617142857  
00:20:27.710 --> 00:20:31.259 Mets and cisplatin and then the mention  
NOTE Confidence: 0.803241617142857  
00:20:31.259 --> 00:20:35.518 of those new technology add-on payments.  
NOTE Confidence: 0.803241617142857  
00:20:35.520 --> 00:20:36.796 For the second line,  
NOTE Confidence: 0.803241617142857  
00:20:36.796 --> 00:20:39.213 so I'll just say for a moment  
NOTE Confidence: 0.803241617142857  
00:20:39.213 --> 00:20:41.732 that most of these patients you  
NOTE Confidence: 0.803241617142857

00:20:41.732 --> 00:20:44.352 know 60 to 80% response rate.  
NOTE Confidence: 0.803241617142857

00:20:44.352 --> 00:20:47.268 The vast majority of these patients  
NOTE Confidence: 0.803241617142857

00:20:47.268 --> 00:20:49.560 will respond to to treatment,  
NOTE Confidence: 0.803241617142857

00:20:49.560 --> 00:20:52.344 and the tumor often will melt  
NOTE Confidence: 0.803241617142857

00:20:52.344 --> 00:20:53.736 away relatively quickly.  
NOTE Confidence: 0.803241617142857

00:20:53.740 --> 00:20:55.340 Patients go back to work.  
NOTE Confidence: 0.803241617142857

00:20:55.340 --> 00:21:00.710 I saw one guy. Who?  
NOTE Confidence: 0.803241617142857

00:21:00.710 --> 00:21:01.758 Was in the hospital.  
NOTE Confidence: 0.803241617142857

00:21:01.758 --> 00:21:04.049 Went back to work after his first cycle.  
NOTE Confidence: 0.803241617142857

00:21:04.050 --> 00:21:08.054 I just saw him last week doing really well.  
NOTE Confidence: 0.803241617142857

00:21:08.054 --> 00:21:10.326 It's it's really remarkable.  
NOTE Confidence: 0.803241617142857

00:21:10.330 --> 00:21:10.961 However,  
NOTE Confidence: 0.803241617142857

00:21:10.961 --> 00:21:13.485 if these patients have  
NOTE Confidence: 0.803241617142857

00:21:13.485 --> 00:21:15.378 extensive stage disease,  
NOTE Confidence: 0.803241617142857

00:21:15.380 --> 00:21:16.409 they will recur.  
NOTE Confidence: 0.786299779

00:21:18.700 --> 00:21:20.930 Unfortunately and so then and

NOTE Confidence: 0.786299779

00:21:20.930 --> 00:21:23.160 and typically when they recur,

NOTE Confidence: 0.786299779

00:21:23.160 --> 00:21:26.748 their disease is much less responsive.

NOTE Confidence: 0.786299779

00:21:26.750 --> 00:21:29.414 If they recur within three to six months.

NOTE Confidence: 0.919582994545454

00:21:32.040 --> 00:21:33.870 If they, if they make it

NOTE Confidence: 0.919582994545454

00:21:33.870 --> 00:21:35.680 past three to six months,

NOTE Confidence: 0.919582994545454

00:21:35.680 --> 00:21:37.700 then they're they're platinum sensitive,

NOTE Confidence: 0.919582994545454

00:21:37.700 --> 00:21:40.160 and then sometimes we'll

NOTE Confidence: 0.919582994545454

00:21:40.160 --> 00:21:42.005 retreat with platinum.

NOTE Confidence: 0.919582994545454

00:21:42.010 --> 00:21:43.648 If they're less than three months,

NOTE Confidence: 0.919582994545454

00:21:43.650 --> 00:21:46.122 than they're really sort of refractory

NOTE Confidence: 0.919582994545454

00:21:46.122 --> 00:21:48.302 or resistant, and then we need

NOTE Confidence: 0.919582994545454

00:21:48.302 --> 00:21:50.330 to really look at other agents.

NOTE Confidence: 0.919582994545454

00:21:50.330 --> 00:21:52.568 So what other agents are there?

NOTE Confidence: 0.919582994545454

00:21:52.570 --> 00:21:54.845 Well, lerber Nectin is a

NOTE Confidence: 0.919582994545454

00:21:54.845 --> 00:21:56.665 standard is a chemotherapy,

NOTE Confidence: 0.919582994545454

00:21:56.670 --> 00:22:00.870 and this was approved it in June of 2020,  
NOTE Confidence: 0.919582994545454

00:22:00.870 --> 00:22:03.445 based on a small trial.  
NOTE Confidence: 0.919582994545454

00:22:03.450 --> 00:22:07.041 100 patients overall response rates 35%.  
NOTE Confidence: 0.919582994545454

00:22:07.041 --> 00:22:10.969 OK, so this is something that we use.  
NOTE Confidence: 0.919582994545454

00:22:10.970 --> 00:22:12.578 I I note this because again,  
NOTE Confidence: 0.919582994545454

00:22:12.580 --> 00:22:15.284 this sort of gives you a sense of  
NOTE Confidence: 0.919582994545454

00:22:15.284 --> 00:22:18.483 how the how the the the approval  
NOTE Confidence: 0.919582994545454

00:22:18.483 --> 00:22:20.918 space works here so pembrolizumab.  
NOTE Confidence: 0.919582994545454

00:22:20.920 --> 00:22:24.568 And Neevo actually were approved in 2018  
NOTE Confidence: 0.919582994545454

00:22:24.568 --> 00:22:27.700 and 2019 on the basis of very small trial.  
NOTE Confidence: 0.919582994545454

00:22:27.700 --> 00:22:31.988 So 8300 patients and a limited response rate.  
NOTE Confidence: 0.919582994545454

00:22:31.990 --> 00:22:33.394 Wow, just 12%,  
NOTE Confidence: 0.919582994545454

00:22:33.394 --> 00:22:36.670 but that was approved at that time.  
NOTE Confidence: 0.919582994545454

00:22:36.670 --> 00:22:40.998 And and So what you'll see is that.  
NOTE Confidence: 0.919582994545454

00:22:41.000 --> 00:22:43.667 The these two drugs actually now have  
NOTE Confidence: 0.919582994545454

00:22:43.667 --> 00:22:46.135 been withdrawn by the FDA actually

NOTE Confidence: 0.919582994545454  
00:22:46.135 --> 00:22:48.631 withdrawn by from the sponsors because  
NOTE Confidence: 0.919582994545454  
00:22:48.631 --> 00:22:51.480 they had subsequent phase three trials.  
NOTE Confidence: 0.919582994545454  
00:22:51.480 --> 00:22:53.250 So randomized phase three trials  
NOTE Confidence: 0.919582994545454  
00:22:53.250 --> 00:22:55.850 that did not show up a benefit  
NOTE Confidence: 0.919582994545454  
00:22:55.850 --> 00:22:57.755 so they actually pulled those.  
NOTE Confidence: 0.919582994545454  
00:22:57.760 --> 00:22:59.980 So right now Rubberneckin and  
NOTE Confidence: 0.919582994545454  
00:22:59.980 --> 00:23:02.694 Topotecan are the only approved agents  
NOTE Confidence: 0.919582994545454  
00:23:02.694 --> 00:23:05.184 for relapse disease and that's why  
NOTE Confidence: 0.919582994545454  
00:23:05.184 --> 00:23:07.839 we're trying so hard in this space  
NOTE Confidence: 0.919582994545454  
00:23:07.839 --> 00:23:11.498 to to improve options for patients.  
NOTE Confidence: 0.919582994545454  
00:23:11.500 --> 00:23:14.320 OK, I'm just going to a few more slides left.  
NOTE Confidence: 0.919582994545454  
00:23:14.320 --> 00:23:16.534 This is something I wanted to talk to you.  
NOTE Confidence: 0.919582994545454  
00:23:16.540 --> 00:23:18.979 This is a.  
NOTE Confidence: 0.919582994545454  
00:23:18.980 --> 00:23:21.500 This is actually a slide about  
NOTE Confidence: 0.919582994545454  
00:23:21.500 --> 00:23:23.800 EGFR or non small cells,  
NOTE Confidence: 0.919582994545454

00:23:23.800 --> 00:23:26.716 so the idea being that you  
NOTE Confidence: 0.919582994545454

00:23:26.716 --> 00:23:28.660 have one tumor type.  
NOTE Confidence: 0.919582994545454

00:23:28.660 --> 00:23:31.068 So for example non small cell lung  
NOTE Confidence: 0.919582994545454

00:23:31.068 --> 00:23:33.351 cancer and then depending on the  
NOTE Confidence: 0.919582994545454

00:23:33.351 --> 00:23:35.703 mutation you have you you have  
NOTE Confidence: 0.919582994545454

00:23:35.703 --> 00:23:37.619 different treatments available.  
NOTE Confidence: 0.919582994545454

00:23:37.620 --> 00:23:39.960 So this is something that's now  
NOTE Confidence: 0.919582994545454

00:23:39.960 --> 00:23:42.379 being looked at in small cell  
NOTE Confidence: 0.919582994545454

00:23:42.379 --> 00:23:44.719 and it's not a gene mutation,  
NOTE Confidence: 0.919582994545454

00:23:44.720 --> 00:23:48.150 but it's sort of a a molecular  
NOTE Confidence: 0.919582994545454

00:23:48.150 --> 00:23:49.960 subtype that's characterized by.  
NOTE Confidence: 0.919582994545454

00:23:49.960 --> 00:23:52.460 Overexpression of a transcription factor,  
NOTE Confidence: 0.919582994545454

00:23:52.460 --> 00:23:55.802 so it is something that potentially  
NOTE Confidence: 0.919582994545454

00:23:55.802 --> 00:24:00.159 could be tested for in tissue or in DNA,  
NOTE Confidence: 0.919582994545454

00:24:00.160 --> 00:24:01.080 RNA, and,  
NOTE Confidence: 0.919582994545454

00:24:01.080 --> 00:24:04.300 but that that same idea that you

NOTE Confidence: 0.919582994545454  
00:24:04.300 --> 00:24:07.160 might have different patients.  
NOTE Confidence: 0.919582994545454  
00:24:07.160 --> 00:24:09.160 With small cell lung cancer,  
NOTE Confidence: 0.919582994545454  
00:24:09.160 --> 00:24:12.107 but a different type that would either  
NOTE Confidence: 0.919582994545454  
00:24:12.107 --> 00:24:16.020 respond to a treatment a for the green type,  
NOTE Confidence: 0.919582994545454  
00:24:16.020 --> 00:24:19.296 treatment B for the red type,  
NOTE Confidence: 0.919582994545454  
00:24:19.300 --> 00:24:20.000 et cetera.  
NOTE Confidence: 0.919582994545454  
00:24:20.000 --> 00:24:21.750 That is something that we're  
NOTE Confidence: 0.919582994545454  
00:24:21.750 --> 00:24:23.060 starting to look at.  
NOTE Confidence: 0.919582994545454  
00:24:23.060 --> 00:24:25.859 It's very far away from any kind of any.  
NOTE Confidence: 0.919582994545454  
00:24:25.860 --> 00:24:26.224 Actually,  
NOTE Confidence: 0.919582994545454  
00:24:26.224 --> 00:24:28.408 we just started thinking about putting  
NOTE Confidence: 0.919582994545454  
00:24:28.408 --> 00:24:31.318 a a trial like this together and swap,  
NOTE Confidence: 0.919582994545454  
00:24:31.320 --> 00:24:32.780 but it's very far away,  
NOTE Confidence: 0.919582994545454  
00:24:32.780 --> 00:24:34.070 but I think that the best,  
NOTE Confidence: 0.919582994545454  
00:24:34.070 --> 00:24:37.409 the that's the promise of being able to take.  
NOTE Confidence: 0.919582994545454

00:24:37.410 --> 00:24:38.472 Small cell biology.  
NOTE Confidence: 0.919582994545454

00:24:38.472 --> 00:24:40.596 Understand it better and and hope  
NOTE Confidence: 0.919582994545454

00:24:40.596 --> 00:24:43.095 to to be able to do precision  
NOTE Confidence: 0.919582994545454

00:24:43.095 --> 00:24:44.483 medicine for those patients.  
NOTE Confidence: 0.712182173571429

00:24:46.580 --> 00:24:50.619 Umm? This is the small cell program,  
NOTE Confidence: 0.712182173571429

00:24:50.620 --> 00:24:55.138 so we see about 80 to 90 patients annually  
NOTE Confidence: 0.712182173571429

00:24:55.138 --> 00:25:00.330 in the in the entire state and Rhode Island.  
NOTE Confidence: 0.712182173571429

00:25:00.330 --> 00:25:02.466 These are our scientists that we work with.  
NOTE Confidence: 0.712182173571429

00:25:02.470 --> 00:25:05.716 Kurt Schaefer is Co investigator on  
NOTE Confidence: 0.712182173571429

00:25:05.716 --> 00:25:09.072 the biomarker EPI Nebo trial that I  
NOTE Confidence: 0.712182173571429

00:25:09.072 --> 00:25:12.323 have and we just put in an abstract  
NOTE Confidence: 0.712182173571429

00:25:12.323 --> 00:25:15.430 ASCO for results on that Katie.  
NOTE Confidence: 0.712182173571429

00:25:15.430 --> 00:25:20.210 Plenty is. I'm working with her  
NOTE Confidence: 0.712182173571429

00:25:20.210 --> 00:25:22.902 to look at what are the mark?  
NOTE Confidence: 0.712182173571429

00:25:22.902 --> 00:25:25.335 What are the the factors in acquired  
NOTE Confidence: 0.712182173571429

00:25:25.335 --> 00:25:28.239 immunotherapy resistance and how can we

NOTE Confidence: 0.712182173571429  
00:25:28.239 --> 00:25:30.940 understand that this is a New Scientist?  
NOTE Confidence: 0.712182173571429  
00:25:30.940 --> 00:25:32.998 Doctor Ozier he's coming from Fred  
NOTE Confidence: 0.712182173571429  
00:25:32.998 --> 00:25:35.140 Hutch that works on small cell.  
NOTE Confidence: 0.712182173571429  
00:25:35.140 --> 00:25:37.960 He's starting this month.  
NOTE Confidence: 0.712182173571429  
00:25:37.960 --> 00:25:39.665 And Anna works in Katie's  
NOTE Confidence: 0.712182173571429  
00:25:39.665 --> 00:25:41.720 laboratory to do some of the.  
NOTE Confidence: 0.7852505933333333  
00:25:44.700 --> 00:25:49.160 Some of the. Tissue.  
NOTE Confidence: 0.7852505933333333  
00:25:49.160 --> 00:25:52.796 Collection and analysis, and this is  
NOTE Confidence: 0.7852505933333333  
00:25:52.796 --> 00:25:56.109 a resident that's working with me,  
NOTE Confidence: 0.7852505933333333  
00:25:56.110 --> 00:25:58.134 but I would actually put many of you  
NOTE Confidence: 0.7852505933333333  
00:25:58.134 --> 00:26:00.367 or most of you on this slide as well,  
NOTE Confidence: 0.7852505933333333  
00:26:00.370 --> 00:26:02.968 because you're helping in getting those  
NOTE Confidence: 0.7852505933333333  
00:26:02.968 --> 00:26:07.150 patients accrued to the study and.  
NOTE Confidence: 0.7852505933333333  
00:26:07.150 --> 00:26:08.130 And the equally important,  
NOTE Confidence: 0.7852505933333333  
00:26:08.130 --> 00:26:10.457 I'm going to have to get a slide with  
NOTE Confidence: 0.7852505933333333

00:26:10.457 --> 00:26:12.236 everybody's picture on it. Melanie, Jen.  
NOTE Confidence: 0.7852505933333333

00:26:12.236 --> 00:26:16.070 We'll have to work on that. Umm?  
NOTE Confidence: 0.7852505933333333

00:26:16.070 --> 00:26:18.899 So these are the key. Take home points.  
NOTE Confidence: 0.7852505933333333

00:26:18.899 --> 00:26:21.231 Combination Chemoradiation is recommended  
NOTE Confidence: 0.7852505933333333

00:26:21.231 --> 00:26:24.430 for slime therapy for limited stage.  
NOTE Confidence: 0.7852505933333333

00:26:24.430 --> 00:26:27.240 That means limited to a  
NOTE Confidence: 0.7852505933333333

00:26:27.240 --> 00:26:28.824 radiation portal combination.  
NOTE Confidence: 0.7852505933333333

00:26:28.824 --> 00:26:30.186 Chemo and immunotherapy.  
NOTE Confidence: 0.7852505933333333

00:26:30.186 --> 00:26:32.456 This is through the system.  
NOTE Confidence: 0.7852505933333333

00:26:32.460 --> 00:26:35.666 Through the blood is recommended for slain  
NOTE Confidence: 0.7852505933333333

00:26:35.666 --> 00:26:38.300 treatment for extensive stage small cell.  
NOTE Confidence: 0.7852505933333333

00:26:38.300 --> 00:26:40.355 Some selected patients with early  
NOTE Confidence: 0.7852505933333333

00:26:40.355 --> 00:26:42.410 stage small cell can benefit  
NOTE Confidence: 0.7852505933333333

00:26:42.478 --> 00:26:44.980 from surgery and then followed by  
NOTE Confidence: 0.7852505933333333

00:26:44.980 --> 00:26:47.320 chemotherapy and didn't spend a lot of.  
NOTE Confidence: 0.7852505933333333

00:26:47.320 --> 00:26:49.056 I didn't spend time talking about that,

NOTE Confidence: 0.7852505933333333  
00:26:49.060 --> 00:26:52.790 but that is a possibility.  
NOTE Confidence: 0.7852505933333333  
00:26:52.790 --> 00:26:54.956 And advances in small cell biology  
NOTE Confidence: 0.7852505933333333  
00:26:54.956 --> 00:26:56.867 will hopefully yield biomarkers to  
NOTE Confidence: 0.7852505933333333  
00:26:56.867 --> 00:26:58.487 direct and personalized treatment,  
NOTE Confidence: 0.7852505933333333  
00:26:58.490 --> 00:27:00.422 and that's something that we're working  
NOTE Confidence: 0.7852505933333333  
00:27:00.422 --> 00:27:02.370 on actively here to understand.  
NOTE Confidence: 0.7852505933333333  
00:27:02.370 --> 00:27:06.594 So I did that as my last one.  
NOTE Confidence: 0.7852505933333333  
00:27:06.600 --> 00:27:07.100 OK.  
NOTE Confidence: 0.859843258  
00:27:09.430 --> 00:27:12.370 Let's see some questions here.  
NOTE Confidence: 0.859843258  
00:27:12.370 --> 00:27:14.806 When you mentioned if the patient impatient,  
NOTE Confidence: 0.859843258  
00:27:14.810 --> 00:27:17.546 you could give them chemo alone and Oh yeah,  
NOTE Confidence: 0.859843258  
00:27:17.550 --> 00:27:19.538 that's the question that I answered before.  
NOTE Confidence: 0.876287611666667  
00:27:22.760 --> 00:27:24.158 What do I know and that?  
NOTE Confidence: 0.876287611666667  
00:27:24.160 --> 00:27:25.660 Do you have any questions?  
NOTE Confidence: 0.876287611666667  
00:27:25.660 --> 00:27:26.896 Does this make sense to you?  
NOTE Confidence: 0.876287611666667

00:27:26.900 --> 00:27:31.290 Is this similar to other other?

NOTE Confidence: 0.876287611666667

00:27:31.290 --> 00:27:34.360 Other presentations.

NOTE Confidence: 0.876287611666667

00:27:34.360 --> 00:27:36.628 I have no questions right now.

NOTE Confidence: 0.876287611666667

00:27:36.630 --> 00:27:38.940 Is it helpful to hear about it?

NOTE Confidence: 0.876287611666667

00:27:38.940 --> 00:27:41.190 Yes, very helpful.

NOTE Confidence: 0.876287611666667

00:27:41.190 --> 00:27:43.334 OK, so like every bit I hear about

NOTE Confidence: 0.876287611666667

00:27:43.334 --> 00:27:45.000 the different cancers is helpful.