WEBVTT

NOTE duration:"00:59:32" NOTE recognizability:0.905

NOTE language:en-us

NOTE Confidence: 0.87695661375

00:00:00.000 --> 00:00:04.312 I'm Chris Van **** and I direct

NOTE Confidence: 0.87695661375

00:00:04.312 --> 00:00:06.571 our department's division of

NOTE Confidence: 0.87695661375

 $00:00:06.571 \longrightarrow 00:00:08.759$ aging and geriatric psychiatry.

NOTE Confidence: 0.87695661375

 $00:00:08.760 \longrightarrow 00:00:11.861$ This is the first grand rounds that

NOTE Confidence: 0.87695661375

00:00:11.861 --> 00:00:14.678 our division has hosted in some time

NOTE Confidence: 0.87695661375

00:00:14.678 --> 00:00:17.863 and I I'd like to say I think we're

NOTE Confidence: 0.87695661375

00:00:17.863 --> 00:00:20.029 resuming in very fine style with

NOTE Confidence: 0.87695661375

 $00{:}00{:}20.029 \dashrightarrow 00{:}00{:}22.529$ today's speaker doctor Brent Forrester.

NOTE Confidence: 0.87695661375

 $00:00:22.530 \longrightarrow 00:00:25.202$ Now Brent is the chief of the division

NOTE Confidence: 0.87695661375

 $00{:}00{:}25.202 \dashrightarrow 00{:}00{:}28.240$ of Geriatric Psychiatry at McLean and

NOTE Confidence: 0.87695661375

00:00:28.240 --> 00:00:29.990 Medical Director for Dementia care

NOTE Confidence: 0.87695661375

 $00:00:29.990 \longrightarrow 00:00:31.830$ and behavioral and mental health.

NOTE Confidence: 0.87695661375

 $00:00:31.830 \longrightarrow 00:00:34.272$ Population health management

 $00:00:34.272 \longrightarrow 00:00:37.528$ at Mass General Brigham.

NOTE Confidence: 0.87695661375

 $00{:}00{:}37.530 \to 00{:}00{:}39.885$ He is associate professor of psychiatry

NOTE Confidence: 0.87695661375

 $00:00:39.885 \longrightarrow 00:00:42.415$ at Harvard Medical School and has

NOTE Confidence: 0.87695661375

00:00:42.415 --> 00:00:44.830 several other titles that I won't list.

NOTE Confidence: 0.87695661375

 $00:00:44.830 \longrightarrow 00:00:47.902$ But of special note is that Brent is

NOTE Confidence: 0.87695661375

 $00:00:47.902 \longrightarrow 00:00:51.118$ the current president of the American

NOTE Confidence: 0.87695661375

00:00:51.118 --> 00:00:53.666 Association for Geriatric Psychiatry,

NOTE Confidence: 0.87695661375

 $00:00:53.666 \longrightarrow 00:00:56.926$ which is our national organization.

NOTE Confidence: 0.87695661375

 $00{:}00{:}56.930 \dashrightarrow 00{:}00{:}59.330$ He specializes in the treatment

NOTE Confidence: 0.87695661375

 $00:00:59.330 \longrightarrow 00:01:01.330$ of older adults with depression,

NOTE Confidence: 0.87695661375

00:01:01.330 --> 00:01:02.664 bipolar disorder,

NOTE Confidence: 0.87695661375

 $00:01:02.664 \longrightarrow 00:01:05.332$ and behavioral complications of

NOTE Confidence: 0.87695661375

 $00:01:05.332 \dashrightarrow 00:01:08.830$ Alzheimer's disease and related dementia.

NOTE Confidence: 0.87695661375

 $00:01:08.830 \longrightarrow 00:01:11.488$ As we'll see.

NOTE Confidence: 0.87695661375

00:01:11.490 --> 00:01:13.298 In his presentation today,

NOTE Confidence: 0.87695661375

 $00:01:13.298 \longrightarrow 00:01:16.010$ his research focuses on novel treatment

 $00:01:16.086 \longrightarrow 00:01:18.691$ approaches to manage the disabling

NOTE Confidence: 0.87695661375

 $00:01:18.691 \longrightarrow 00:01:20.775$ behavioral complications of dementia

NOTE Confidence: 0.87695661375

00:01:20.775 --> 00:01:23.364 such as agitation and aggression,

NOTE Confidence: 0.87695661375

 $00:01:23.364 \longrightarrow 00:01:26.886$ and his presentation today is entitled

NOTE Confidence: 0.87695661375

 $00:01:26.890 \longrightarrow 00:01:29.305$ addressing the epidemic of Alzheimer's

NOTE Confidence: 0.87695661375

 $00:01:29.305 \longrightarrow 00:01:31.720$ dementia with evidence based approaches

NOTE Confidence: 0.87695661375

00:01:31.791 --> 00:01:34.206 to treating Neuro psychiatric syndrome,

NOTE Confidence: 0.87695661375

 $00:01:34.210 \longrightarrow 00:01:36.100$ symptoms of dementia,

NOTE Confidence: 0.87695661375

 $00:01:36.100 \longrightarrow 00:01:38.620$ and population health informed

NOTE Confidence: 0.87695661375

 $00{:}01{:}38.620 \dashrightarrow 00{:}01{:}41.010$ collaborative models of care.

NOTE Confidence: 0.87695661375

00:01:41.010 --> 00:01:43.050 So with no further delay,

NOTE Confidence: 0.87695661375

00:01:43.050 --> 00:01:44.790 let me introduce to you

NOTE Confidence: 0.87695661375

 $00{:}01{:}44.790 --> 00{:}01{:}46.329 \ doctor \ Brent \ Forrester.$

NOTE Confidence: 0.932037372380952

00:01:47.530 --> 00:01:49.672 Thank you Chris for that kind

NOTE Confidence: 0.932037372380952

 $00:01:49.672 \longrightarrow 00:01:51.625$ introduction and really great to see

00:01:51.625 --> 00:01:53.770 many of you on the screen who I know

NOTE Confidence: 0.932037372380952

 $00{:}01{:}53.770 \dashrightarrow 00{:}01{:}55.396$ who have been friends and colleagues

NOTE Confidence: 0.932037372380952

 $00:01:55.396 \longrightarrow 00:01:57.238$ of mine for quite so many years.

NOTE Confidence: 0.932037372380952

 $00{:}01{:}57.240 \dashrightarrow 00{:}01{:}59.304$ I will say that Yale holds a special

NOTE Confidence: 0.932037372380952

 $00:01:59.304 \longrightarrow 00:02:01.496$ place in my heart because as Michelle

NOTE Confidence: 0.932037372380952

 $00{:}02{:}01.496 \dashrightarrow 00{:}02{:}03.567$ and Kirsten know during the annual

NOTE Confidence: 0.932037372380952

 $00:02:03.567 \dashrightarrow 00:02:05.548$ meeting I become A at least a

NOTE Confidence: 0.932037372380952

00:02:05.548 --> 00:02:07.489 member of your family by going out

NOTE Confidence: 0.932037372380952

 $00:02:07.489 \longrightarrow 00:02:09.414$ to a dinner with the Yale folks.

NOTE Confidence: 0.932037372380952

00:02:09.420 --> 00:02:10.845 So that's always a highlight

NOTE Confidence: 0.932037372380952

 $00:02:10.845 \longrightarrow 00:02:12.270$ of the year for me,

NOTE Confidence: 0.932037372380952

 $00:02:12.270 \longrightarrow 00:02:13.554$ and it's a real pleasure to

NOTE Confidence: 0.932037372380952

 $00:02:13.554 \longrightarrow 00:02:15.123$ speak to you today about a topic

NOTE Confidence: 0.932037372380952

 $00{:}02{:}15.123 --> 00{:}02{:}16.228$ that's dear to my heart.

NOTE Confidence: 0.932037372380952

 $00:02:16.230 \longrightarrow 00:02:17.670$ Which is Alzheimer's disease?

NOTE Confidence: 0.932037372380952

 $00{:}02{:}17.670 \dashrightarrow 00{:}02{:}20.370$ So I'm going to share my screen.

 $00:02:33.290 \longrightarrow 00:02:34.950$ And Chris, give me the

NOTE Confidence: 0.884717254545455

 $00:02:34.950 \longrightarrow 00:02:37.050$ thumbs up if that looks good.

NOTE Confidence: 0.884717254545455

 $00:02:37.050 \dashrightarrow 00:02:39.366$ That looks good, alright, excellent.

NOTE Confidence: 0.884717254545455

 $00:02:39.366 \longrightarrow 00:02:41.238$ Alright, by the way,

NOTE Confidence: 0.884717254545455

00:02:41.240 --> 00:02:44.560 I should say the building on the left,

NOTE Confidence: 0.884717254545455

 $00:02:44.560 \longrightarrow 00:02:46.765$ the old print there is the original

NOTE Confidence: 0.884717254545455

00:02:46.765 --> 00:02:49.259 campus of the McLean Asylum and well,

NOTE Confidence: 0.884717254545455

 $00:02:49.260 \longrightarrow 00:02:50.188$ it says Somerville Mass.

NOTE Confidence: 0.884717254545455

00:02:50.188 --> 00:02:51.800 Some people would have call it now.

NOTE Confidence: 0.884717254545455

00:02:51.800 --> 00:02:53.114 Charleston Charles Charlestown,

NOTE Confidence: 0.884717254545455

00:02:53.114 --> 00:02:56.180 Massachusetts when it was founded in 1811,

NOTE Confidence: 0.884717254545455

 $00:02:56.180 \longrightarrow 00:02:58.371$ it moved to the campus where currently

NOTE Confidence: 0.884717254545455

 $00{:}02{:}58.371 \dashrightarrow 00{:}03{:}00.996$ is in Belmont in 1895 and the buildings

NOTE Confidence: 0.884717254545455

 $00{:}03{:}00.996 \dashrightarrow 00{:}03{:}03.240$ still pretty much look the same

NOTE Confidence: 0.884717254545455

 $00:03:03.240 \longrightarrow 00:03:05.137$ and and the building on the right,

 $00:03:05.140 \longrightarrow 00:03:07.023$ which little fuzzy is a new corporate

NOTE Confidence: 0.884717254545455

 $00{:}03{:}07.023 \dashrightarrow 00{:}03{:}08.381$ structure that mass general Brigham

NOTE Confidence: 0.884717254545455

 $00:03:08.381 \longrightarrow 00:03:10.381$ built a few years ago and has largely

NOTE Confidence: 0.884717254545455

 $00:03:10.433 \longrightarrow 00:03:12.036$ been empty for the past two years.

NOTE Confidence: 0.884717254545455

 $00:03:12.040 \longrightarrow 00:03:13.544$ Because of the pandemic.

NOTE Confidence: 0.884717254545455

 $00:03:13.544 \longrightarrow 00:03:15.876$ But it represents our transformation

NOTE Confidence: 0.884717254545455

 $00{:}03{:}15.876 \dashrightarrow 00{:}03{:}18.321$ from siloed sort of singular

NOTE Confidence: 0.884717254545455

 $00:03:18.321 \longrightarrow 00:03:20.257$ hospitals to a system of care,

NOTE Confidence: 0.884717254545455

 $00:03:20.260 \longrightarrow 00:03:21.694$ and I'm I'm mentioning that now

NOTE Confidence: 0.884717254545455

 $00{:}03{:}21.694 \dashrightarrow 00{:}03{:}23.159$ because I think it's relevant for

NOTE Confidence: 0.884717254545455

00:03:23.159 --> 00:03:24.769 the the second part of the talk,

NOTE Confidence: 0.884717254545455

 $00:03:24.770 \longrightarrow 00:03:26.090$ which is more on the population

NOTE Confidence: 0.884717254545455

 $00:03:26.090 \longrightarrow 00:03:26.970$ health side of things.

NOTE Confidence: 0.91127961

 $00:03:29.690 \longrightarrow 00:03:31.786$ Alright, so here are some of my disclosures.

NOTE Confidence: 0.90437754

 $00:03:33.920 \longrightarrow 00:03:35.480$ So I'm going to talk a bit about

NOTE Confidence: 0.90437754

 $00:03:35.480 \longrightarrow 00:03:36.683$ real quickly about epidemiology of

00:03:36.683 --> 00:03:38.213 dementia and talk about a case,

NOTE Confidence: 0.90437754

 $00{:}03{:}38.220 \dashrightarrow 00{:}03{:}39.718$ really to highlight some of the key

NOTE Confidence: 0.90437754

00:03:39.718 --> 00:03:41.300 clinical issues I want to address today,

NOTE Confidence: 0.90437754

 $00:03:41.300 \longrightarrow 00:03:42.962$ which are really the behavioral symptoms

NOTE Confidence: 0.90437754

 $00:03:42.962 \longrightarrow 00:03:44.766$ of dementia that drive the burden of

NOTE Confidence: 0.90437754

00:03:44.766 --> 00:03:46.271 this disease and give those of you,

NOTE Confidence: 0.90437754

00:03:46.280 --> 00:03:48.122 especially those of you who, whether you,

NOTE Confidence: 0.90437754

 $00{:}03{:}48.122 \dashrightarrow 00{:}03{:}50.018$ whether your geriatric psychiatrist or not.

NOTE Confidence: 0.90437754

 $00:03:50.020 \longrightarrow 00:03:52.632$ Most people I realize or not you're going

NOTE Confidence: 0.90437754

 $00:03:52.632 \longrightarrow 00:03:54.560$ to be seeing not only an aging population,

NOTE Confidence: 0.90437754

 $00{:}03{:}54.560 \dashrightarrow 00{:}03{:}56.688$ but you're going to be seeing an

NOTE Confidence: 0.90437754

 $00:03:56.688 \longrightarrow 00:03:58.159$ increasing aging population with

NOTE Confidence: 0.90437754

 $00{:}03{:}58.159 \dashrightarrow 00{:}03{:}59.680$ various neurodegenerative illnesses

NOTE Confidence: 0.90437754

 $00{:}03{:}59.680 \dashrightarrow 00{:}04{:}00.697$ including Alzheimer's disease.

NOTE Confidence: 0.90437754

00:04:00.697 --> 00:04:02.392 And knowing more about diagnosis

 $00:04:02.392 \longrightarrow 00:04:04.124$ and treatment approaches is going

NOTE Confidence: 0.90437754

 $00{:}04{:}04{:}124 \dashrightarrow 00{:}04{:}05{.}460$ to become increasingly important,

NOTE Confidence: 0.90437754

 $00:04:05.460 \longrightarrow 00:04:07.000$ so that's what I really want to

NOTE Confidence: 0.90437754

 $00:04:07.000 \longrightarrow 00:04:07.660$ focus on today.

NOTE Confidence: 0.90437754

 $00:04:07.660 \longrightarrow 00:04:09.428$ And then I'll spend some time at the

NOTE Confidence: 0.90437754

00:04:09.428 --> 00:04:10.951 end talking about how we've adapted

NOTE Confidence: 0.90437754

00:04:10.951 --> 00:04:12.499 some of these key principles and

NOTE Confidence: 0.90437754

 $00:04:12.546 \longrightarrow 00:04:13.996$ implemented them in a population

NOTE Confidence: 0.90437754

 $00:04:13.996 \longrightarrow 00:04:15.446$ based setting in primary care.

NOTE Confidence: 0.930118456071429

00:04:17.810 --> 00:04:20.190 So I like to start every talk I give on

NOTE Confidence: 0.930118456071429

 $00:04:20.257 \longrightarrow 00:04:22.567$ Alzheimer's disease with the most recent

NOTE Confidence: 0.930118456071429

 $00:04:22.567 \longrightarrow 00:04:24.936$ facts and figures from the Alzheimer's

NOTE Confidence: 0.930118456071429

 $00:04:24.936 \longrightarrow 00:04:27.228$ Association and every March or so.

NOTE Confidence: 0.930118456071429

 $00:04:27.230 \longrightarrow 00:04:28.430$ So we're about to see another

NOTE Confidence: 0.930118456071429

 $00:04:28.430 \longrightarrow 00:04:30.038$ one of these in in about a month.

NOTE Confidence: 0.930118456071429

 $00:04:30.040 \longrightarrow 00:04:31.260$ The Alzheimer's Association comes

 $00:04:31.260 \longrightarrow 00:04:33.090$ up with their facts and figures

NOTE Confidence: 0.930118456071429

 $00:04:33.145 \longrightarrow 00:04:34.697$ that highlights demographic issues

NOTE Confidence: 0.930118456071429

00:04:34.697 --> 00:04:36.249 related to Alzheimer's disease.

NOTE Confidence: 0.930118456071429

 $00:04:36.250 \longrightarrow 00:04:38.202$ And I'll just highlight a few things on

NOTE Confidence: 0.930118456071429

00:04:38.202 --> 00:04:39.956 this slide right now in the United States,

NOTE Confidence: 0.930118456071429

 $00:04:39.960 \longrightarrow 00:04:42.020$ there are about 6.2 million

NOTE Confidence: 0.930118456071429

00:04:42.020 --> 00:04:43.668 Americans with Alzheimer's disease,

NOTE Confidence: 0.930118456071429

 $00:04:43.670 \longrightarrow 00:04:45.630$ and based on the aging of the population,

NOTE Confidence: 0.930118456071429

 $00:04:45.630 \longrightarrow 00:04:46.605$ that number is supposed to

NOTE Confidence: 0.930118456071429

 $00:04:46.605 \longrightarrow 00:04:47.870$ triple in the next 20 years.

NOTE Confidence: 0.930118456071429

 $00:04:47.870 \longrightarrow 00:04:48.644$ And that's not.

NOTE Confidence: 0.930118456071429

00:04:48.644 --> 00:04:49.934 Unique to the United States,

NOTE Confidence: 0.930118456071429

 $00:04:49.940 \longrightarrow 00:04:51.965$ it's true all over the

NOTE Confidence: 0.930118456071429

00:04:51.965 --> 00:04:53.585 world with aging adults.

NOTE Confidence: 0.930118456071429

 $00:04:53.590 \longrightarrow 00:04:55.074$ It's the 6th leading cause of death

 $00:04:55.074 \longrightarrow 00:04:56.707$ in the United States and by the way,

NOTE Confidence: 0.930118456071429

 $00{:}04{:}56.710 \dashrightarrow 00{:}04{:}58.576$ the pandemic has been a disaster

NOTE Confidence: 0.930118456071429

00:04:58.576 --> 00:04:59.509 for Alzheimer's disease.

NOTE Confidence: 0.930118456071429

 $00:04:59.510 \longrightarrow 00:05:01.256$ The death rate in Alzheimer's dementia

NOTE Confidence: 0.930118456071429

 $00:05:01.256 \longrightarrow 00:05:03.798$ not only because of individuals who are in

NOTE Confidence: 0.930118456071429

 $00:05:03.798 \longrightarrow 00:05:05.784$ more advanced stages and congregate living,

NOTE Confidence: 0.930118456071429

 $00:05:05.790 \longrightarrow 00:05:08.610$ but but independently because of illness

NOTE Confidence: 0.930118456071429

 $00:05:08.610 \longrightarrow 00:05:11.116$ issues related to the illness of Alzheimer's,

NOTE Confidence: 0.930118456071429

 $00:05:11.120 \longrightarrow 00:05:12.308$ or the effect of the virus.

NOTE Confidence: 0.930118456071429

 $00:05:12.310 \longrightarrow 00:05:14.752$ We've seen just a much higher

NOTE Confidence: 0.930118456071429

 $00{:}05{:}14.752 \dashrightarrow 00{:}05{:}17.610$ mortality rate over the past two years.

NOTE Confidence: 0.930118456071429

 $00:05:17.610 \longrightarrow 00:05:19.234$ This is a disease that not only

NOTE Confidence: 0.930118456071429

 $00:05:19.234 \longrightarrow 00:05:20.769$ impacts the person with the illness,

NOTE Confidence: 0.930118456071429

 $00:05:20.770 \longrightarrow 00:05:22.770$ but like many illnesses that we care for.

NOTE Confidence: 0.930118456071429

00:05:22.770 --> 00:05:25.410 In psychiatry really impacts the family.

NOTE Confidence: 0.930118456071429

 $00:05:25.410 \longrightarrow 00:05:28.310$ So we estimate there over 11.2 million

00:05:28.310 --> 00:05:30.230 Americans providing unpaid caregiving

NOTE Confidence: 0.930118456071429

 $00{:}05{:}30.230 \dashrightarrow 00{:}05{:}33.149$ support to loved ones with dementia.

NOTE Confidence: 0.930118456071429

 $00{:}05{:}33.150 \dashrightarrow 00{:}05{:}35.406$ The total cost of care in the United

NOTE Confidence: 0.930118456071429

 $00:05:35.406 \longrightarrow 00:05:38.394$ States in 2021 was \$355 billion,

NOTE Confidence: 0.930118456071429

 $00:05:38.394 \longrightarrow 00:05:43.420$ with an added two \$57 billion.

NOTE Confidence: 0.930118456071429

 $00:05:43.420 \longrightarrow 00:05:45.312$ For providing home care,

NOTE Confidence: 0.930118456071429

00:05:45.312 --> 00:05:47.478 for example, what's really important,

NOTE Confidence: 0.930118456071429

 $00:05:47.478 \longrightarrow 00:05:50.320$ I think that's become much more clear,

NOTE Confidence: 0.930118456071429

 $00{:}05{:}50.320 \dashrightarrow 00{:}05{:}52.438$ especially in this report from the

NOTE Confidence: 0.930118456071429

00:05:52.440 --> 00:05:54.840 2021 Alzheimer's Association report,

NOTE Confidence: 0.930118456071429

 $00:05:54.840 \longrightarrow 00:05:57.840$ was the bottom right box,

NOTE Confidence: 0.930118456071429

 $00:05:57.840 \longrightarrow 00:05:59.970$ which is really the disproportionate

NOTE Confidence: 0.930118456071429

 $00{:}05{:}59.970 \dashrightarrow 00{:}06{:}01.674$ impact in underserved populations.

NOTE Confidence: 0.930118456071429

00:06:01.680 --> 00:06:02.980 And interestingly,

NOTE Confidence: 0.930118456071429

 $00:06:02.980 \longrightarrow 00:06:05.580$ 36% of black Americans,

 $00:06:05.580 \longrightarrow 00:06:07.132$ 18% of Hispanic Americans,

NOTE Confidence: 0.930118456071429

 $00{:}06{:}07.132 \dashrightarrow 00{:}06{:}09.370$ in 19% of Asian Americans believe

NOTE Confidence: 0.930118456071429

 $00:06:09.370 \longrightarrow 00:06:11.220$ that discrimination is a barrier,

NOTE Confidence: 0.930118456071429

 $00:06:11.220 \longrightarrow 00:06:13.404$ or would be a barrier to receiving

NOTE Confidence: 0.930118456071429

 $00:06:13.404 \longrightarrow 00:06:14.028$ Alzheimer's care.

NOTE Confidence: 0.930118456071429

00:06:14.030 --> 00:06:15.388 And one of the biggest problems that

NOTE Confidence: 0.930118456071429

 $00:06:15.388 \longrightarrow 00:06:17.009$ we have in in the research setting.

NOTE Confidence: 0.930118456071429

00:06:17.010 --> 00:06:18.408 It's just ruin all of psychiatry.

NOTE Confidence: 0.930118456071429

 $00:06:18.410 \longrightarrow 00:06:20.090$ But we see this a lot in dementia as well.

NOTE Confidence: 0.930118456071429

 $00:06:20.090 \longrightarrow 00:06:22.500$ Is that we're seeing generally

NOTE Confidence: 0.930118456071429

 $00:06:22.500 \longrightarrow 00:06:23.946$ homogeneous populations being

NOTE Confidence: 0.930118456071429

 $00:06:23.946 \longrightarrow 00:06:26.113$ either volunteering for or being

NOTE Confidence: 0.930118456071429

00:06:26.113 --> 00:06:27.629 recruited into clinical trials,

NOTE Confidence: 0.930118456071429

 $00:06:27.630 \longrightarrow 00:06:29.202$ and so there's an increasing worry

NOTE Confidence: 0.930118456071429

 $00:06:29.202 \longrightarrow 00:06:30.822$ that what we're finding in some

NOTE Confidence: 0.930118456071429

 $00:06:30.822 \longrightarrow 00:06:32.394$ of these outcomes are really not

 $00:06:32.394 \longrightarrow 00:06:33.869$ representative of a larger population.

NOTE Confidence: 0.930118456071429

 $00{:}06{:}33.870 \dashrightarrow 00{:}06{:}35.726$ So this is an area that I think

NOTE Confidence: 0.930118456071429

 $00:06:35.726 \longrightarrow 00:06:36.850$ throughout all of medicine,

NOTE Confidence: 0.930118456071429

 $00:06:36.850 \longrightarrow 00:06:39.250$ but but also here and Alzheimer's

NOTE Confidence: 0.930118456071429

 $00:06:39.250 \longrightarrow 00:06:41.390$ disease is a major issue.

NOTE Confidence: 0.930118456071429

 $00:06:41.390 \longrightarrow 00:06:43.414$ So let me start out by a relatively

NOTE Confidence: 0.930118456071429

 $00:06:43.414 \longrightarrow 00:06:44.556$ straightforward case of a gentleman

NOTE Confidence: 0.930118456071429

 $00{:}06{:}44.556 \dashrightarrow 00{:}06{:}46.150$ that I saw a number of years ago,

NOTE Confidence: 0.930118456071429

 $00:06:46.150 \longrightarrow 00:06:48.500$ who at the time was in his late 60s and

NOTE Confidence: 0.930118456071429

 $00{:}06{:}48.560 \dashrightarrow 00{:}06{:}51.026$ I had first seen him a few years earlier.

NOTE Confidence: 0.930118456071429

00:06:51.030 --> 00:06:52.935 When he presented with cognitive

NOTE Confidence: 0.930118456071429

 $00:06:52.935 \longrightarrow 00:06:54.840$ issues working as an accountant

NOTE Confidence: 0.930118456071429

 $00{:}06{:}54.899 \dashrightarrow 00{:}06{:}56.978$ unable to do the tax returns and

NOTE Confidence: 0.930118456071429

 $00{:}06{:}56.978 \dashrightarrow 00{:}06{:}58.530$ his partners were concerned,

NOTE Confidence: 0.930118456071429

 $00:06:58.530 \longrightarrow 00:06:59.858$ as was his wife,

 $00:06:59.858 \longrightarrow 00:07:01.518$ we diagnosed him with Alzheimer's

NOTE Confidence: 0.930118456071429

 $00{:}07{:}01.518 {\:{\mbox{--}}\!>\:} 00{:}07{:}03.141$ dementia and now a few years

NOTE Confidence: 0.930118456071429

 $00:07:03.141 \longrightarrow 00:07:04.376$ later he had been having

NOTE Confidence: 0.9155095064

00:07:04.438 --> 00:07:06.542 about two months of insomnia, irritability,

NOTE Confidence: 0.9155095064

00:07:06.542 --> 00:07:08.430 physical restlessness and pacing,

NOTE Confidence: 0.9155095064

 $00{:}07{:}08.430 \dashrightarrow 00{:}07{:}10.264$ especially late in the day and for

NOTE Confidence: 0.9155095064

 $00{:}07{:}10.264 {\:\raisebox{---}{\text{---}}}> 00{:}07{:}12.520$ about the past week he started to talk

NOTE Confidence: 0.9155095064

 $00:07:12.520 \longrightarrow 00:07:14.208$ to these imaginary people who were

NOTE Confidence: 0.9155095064

00:07:14.208 --> 00:07:16.295 in his home and he started to look

NOTE Confidence: 0.9155095064

00:07:16.295 --> 00:07:18.070 more confused according to his wife.

NOTE Confidence: 0.9155095064

 $00{:}07{:}18.070 \dashrightarrow 00{:}07{:}19.888$ He really had no major medical

NOTE Confidence: 0.9155095064

 $00:07:19.888 \longrightarrow 00:07:21.100$ problems in the past.

NOTE Confidence: 0.9155095064

 $00:07:21.100 \longrightarrow 00:07:22.858$ It was a very healthy guy.

NOTE Confidence: 0.9155095064

 $00:07:22.860 \longrightarrow 00:07:24.510$ And we had put him a few years ago and

NOTE Confidence: 0.9155095064

 $00:07:24.560 \longrightarrow 00:07:26.400$ and episil, or Aricept and Memantine.

NOTE Confidence: 0.9155095064

 $00:07:26.400 \longrightarrow 00:07:27.760$ And Amanda standard treatments.

 $00:07:27.760 \longrightarrow 00:07:30.840$ Even today in 2022 for Alzheimer's disease.

NOTE Confidence: 0.9155095064

 $00:07:30.840 \longrightarrow 00:07:33.765$ And he had been on mirtagapine for few years

NOTE Confidence: 0.9155095064

 $00{:}07{:}33.765 \dashrightarrow 00{:}07{:}36.874$ for anxiety and periods of insomnia as well.

NOTE Confidence: 0.9155095064

 $00:07:36.880 \longrightarrow 00:07:38.404$ But now he was having some

NOTE Confidence: 0.9155095064

 $00:07:38.404 \longrightarrow 00:07:39.420$ of these other symptoms.

NOTE Confidence: 0.9155095064

 $00{:}07{:}39.420 \dashrightarrow 00{:}07{:}41.886$ So what I want you to think about as

NOTE Confidence: 0.9155095064

 $00:07:41.886 \longrightarrow 00:07:44.095$ we go through this talk is questions

NOTE Confidence: 0.9155095064

 $00:07:44.095 \longrightarrow 00:07:45.975$ that come out of a case like this

NOTE Confidence: 0.9155095064

 $00{:}07{:}45.975 \dashrightarrow 00{:}07{:}47.560$ and how you would approach it.

NOTE Confidence: 0.9155095064

 $00:07:47.560 \longrightarrow 00:07:48.676$ So for example, how?

NOTE Confidence: 0.9155095064

00:07:48.676 --> 00:07:50.350 How would you define or describe

NOTE Confidence: 0.9155095064

 $00:07:50.403 \longrightarrow 00:07:52.139$ these neuro psychiatric symptoms?

NOTE Confidence: 0.9155095064

 $00{:}07{:}52.140 \dashrightarrow 00{:}07{:}53.560$ Because they're they range

NOTE Confidence: 0.9155095064

 $00:07:53.560 \longrightarrow 00:07:55.335$ across a spectrum of mood,

NOTE Confidence: 0.9155095064

 $00:07:55.340 \longrightarrow 00:07:56.296$ anxiety, sleep,

 $00:07:56.296 \longrightarrow 00:07:59.642$ and then even into psychosis with paranoid

NOTE Confidence: 0.9155095064

 $00:07:59.642 \longrightarrow 00:08:02.169$ delusions and possibly hallucinations.

NOTE Confidence: 0.9155095064

 $00:08:02.170 \longrightarrow 00:08:02.660$ Most importantly,

NOTE Confidence: 0.9155095064

 $00:08:02.660 \longrightarrow 00:08:04.130$ how would you seek the cause

NOTE Confidence: 0.9155095064

 $00:08:04.130 \longrightarrow 00:08:05.874$ with the etiology of these neuro

NOTE Confidence: 0.9155095064

00:08:05.874 --> 00:08:07.078 psychiatric symptoms and what?

NOTE Confidence: 0.9155095064

 $00{:}08{:}07.080 \dashrightarrow 00{:}08{:}09.390$ Medical or neurological diagnosis may

NOTE Confidence: 0.9155095064

 $00:08:09.390 \longrightarrow 00:08:11.702$ help to explain this presentation.

NOTE Confidence: 0.9155095064

 $00:08:11.702 \longrightarrow 00:08:15.390$ And if you're going to treat this individual,

NOTE Confidence: 0.9155095064

00:08:15.390 --> 00:08:17.070 what target symptoms would you be

NOTE Confidence: 0.9155095064

 $00{:}08{:}17.070 \dashrightarrow 00{:}08{:}19.030$ going after and then what behavioral

NOTE Confidence: 0.9155095064

 $00:08:19.030 \longrightarrow 00:08:20.590$ interventions might help and?

NOTE Confidence: 0.9155095064

 $00:08:20.590 \longrightarrow 00:08:22.021$ And if you were going to use the medicine

NOTE Confidence: 0.9155095064

 $00:08:22.021 \longrightarrow 00:08:23.705$ to augment treatment that he's currently on,

NOTE Confidence: 0.9155095064

 $00:08:23.710 \longrightarrow 00:08:24.886$ what would you use and why?

NOTE Confidence: 0.9155095064

 $00:08:24.890 \longrightarrow 00:08:26.714$ And what is the evidence based for that?

 $00:08:26.720 \longrightarrow 00:08:28.142$ So what I'm going to hopefully

NOTE Confidence: 0.9155095064

 $00:08:28.142 \longrightarrow 00:08:29.924$ cover in this first part of the

NOTE Confidence: 0.9155095064

00:08:29.924 --> 00:08:31.490 talk is really going through the

NOTE Confidence: 0.9155095064

00:08:31.490 --> 00:08:32.890 systematic approach to assessment,

NOTE Confidence: 0.9155095064

 $00:08:32.890 \longrightarrow 00:08:35.758$ diagnosis and then and then both

NOTE Confidence: 0.9155095064

00:08:35.758 --> 00:08:37.192 behavioral and pharmacological

NOTE Confidence: 0.9155095064

00:08:37.192 --> 00:08:39.782 management of these of these neuro

NOTE Confidence: 0.9155095064

 $00:08:39.782 \longrightarrow 00:08:41.418$ psychiatric symptoms of dementia.

NOTE Confidence: 0.9155095064

 $00{:}08{:}41.420 \dashrightarrow 00{:}08{:}43.910$ So as far as background goes,

NOTE Confidence: 0.9155095064

 $00{:}08{:}43.910 \longrightarrow 00{:}08{:}45.506$ if you see some body with dementia

NOTE Confidence: 0.9155095064

 $00:08:45.506 \longrightarrow 00:08:47.339$ over the course of their illness,

NOTE Confidence: 0.9155095064

 $00:08:47.340 \longrightarrow 00:08:49.335$ neuro psychiatric symptoms

NOTE Confidence: 0.9155095064

 $00{:}08{:}49.335 \dashrightarrow 00{:}08{:}51.330$ are universally prevalent.

NOTE Confidence: 0.915509506400:08:51.330 --> 00:08:52.006 In fact,

NOTE Confidence: 0.9155095064

 $00:08:52.006 \longrightarrow 00:08:54.372$ some studies have shown rates of up

 $00:08:54.372 \longrightarrow 00:08:56.260$ to 100% over the course of illness.

NOTE Confidence: 0.9155095064 00:08:56.260 --> 00:08:56.540 Again, NOTE Confidence: 0.9155095064

00:08:56.540 --> 00:08:59.060 they could be as mild as worrying or pacing,

NOTE Confidence: 0.9155095064

 $00:08:59.060 \longrightarrow 00:09:00.704$ or they could be as severe

NOTE Confidence: 0.9155095064

 $00:09:00.704 \longrightarrow 00:09:01.526$ as physical aggression.

NOTE Confidence: 0.9155095064

 $00{:}09{:}01.530 \longrightarrow 00{:}09{:}02.880$ But when you see these symptoms,

NOTE Confidence: 0.9155095064

 $00{:}09{:}02.880 \dashrightarrow 00{:}09{:}04.632$ the reason they're important is not

NOTE Confidence: 0.9155095064

 $00:09:04.632 \longrightarrow 00:09:06.561$ only they are disabling to the person

NOTE Confidence: 0.9155095064

 $00{:}09{:}06.561 \dashrightarrow 00{:}09{:}08.220$ and making them feel lousy and and

NOTE Confidence: 0.9155095064

00:09:08.276 --> 00:09:09.860 concerned about safety concerns,

NOTE Confidence: 0.9155095064

 $00{:}09{:}09.860 \dashrightarrow 00{:}09{:}10.685$ but they do.

NOTE Confidence: 0.9155095064

00:09:10.685 --> 00:09:12.610 Seem to be associated with a higher

NOTE Confidence: 0.9155095064

00:09:12.668 --> 00:09:14.328 morbidity and even mortality,

NOTE Confidence: 0.9155095064

 $00{:}09{:}14.330 \dashrightarrow 00{:}09{:}17.720$ and a more rapid functional decline.

NOTE Confidence: 0.9155095064

00:09:17.720 --> 00:09:20.160 Practice guidelines that exist,

NOTE Confidence: 0.9155095064

 $00:09:20.160 \longrightarrow 00:09:22.451$ including the 2016 APA guidelines

 $00:09:22.451 \longrightarrow 00:09:24.236$ for the use of antipsychotics

NOTE Confidence: 0.9155095064

 $00:09:24.240 \longrightarrow 00:09:25.461$ and Alzheimer's disease,

NOTE Confidence: 0.9155095064

 $00:09:25.461 \longrightarrow 00:09:27.089$ recommend antipsychotics as first

NOTE Confidence: 0.9155095064

 $00:09:27.089 \longrightarrow 00:09:29.076$ line treatment for those patients

NOTE Confidence: 0.9155095064

 $00{:}09{:}29.076 \dashrightarrow 00{:}09{:}30.846$ with dementia who have a gitation

NOTE Confidence: 0.9155095064

 $00:09:30.846 \longrightarrow 00:09:32.760$ that are associated with psychosis,

NOTE Confidence: 0.9155095064

 $00:09:32.760 \longrightarrow 00:09:34.436$ so hallucinations or delusions.

NOTE Confidence: 0.9155095064

 $00{:}09{:}34.436 \dashrightarrow 00{:}09{:}37.595$ But what if you've got somebody who's

NOTE Confidence: 0.9155095064

 $00{:}09{:}37.595 \dashrightarrow 00{:}09{:}39.899$ physically aggressive or disinhibited

NOTE Confidence: 0.9155095064

00:09:39.899 --> 00:09:41.788 verbally without any provocation,

NOTE Confidence: 0.9155095064

 $00:09:41.788 \longrightarrow 00:09:43.532$ without any association with

NOTE Confidence: 0.9155095064

00:09:43.532 --> 00:09:45.600 psychosis or or depression?

NOTE Confidence: 0.9155095064

 $00{:}09{:}45.600 \dashrightarrow 00{:}09{:}47.105$ That's where the even the experts don't

NOTE Confidence: 0.9155095064

 $00:09:47.105 \longrightarrow 00:09:48.828$ agree on a first line of treatment.

NOTE Confidence: 0.9155095064

 $00:09:48.830 \longrightarrow 00:09:51.512$ That's where we use combinations of

 $00:09:51.512 \longrightarrow 00:09:53.300$ medications that include antipsychotics

NOTE Confidence: 0.904780860666667

 $00{:}09{:}53.363 --> 00{:}09{:}54.722 \text{ or mood stabilizing}$

NOTE Confidence: 0.904780860666667

00:09:54.722 --> 00:09:55.904 anticonvulsants or SSRI's,

NOTE Confidence: 0.904780860666667

 $00:09:55.904 \longrightarrow 00:09:58.096$ and we'll talk more about this in detail.

NOTE Confidence: 0.904780860666667

 $00:09:58.100 \longrightarrow 00:10:01.110$ And so we have a number of

NOTE Confidence: 0.904780860666667

 $00:10:01.110 \longrightarrow 00:10:02.780$ different acronyms that are used

NOTE Confidence: 0.904780860666667

 $00:10:02.780 \longrightarrow 00:10:04.020$ to describe these syndromes,

NOTE Confidence: 0.904780860666667

 $00:10:04.020 \longrightarrow 00:10:06.132$ one of which is BPSD or the behavioral

NOTE Confidence: 0.904780860666667

 $00{:}10{:}06.132 \dashrightarrow 00{:}10{:}07.699$ and psychological symptoms of dementia.

NOTE Confidence: 0.904780860666667

 $00:10:07.700 \longrightarrow 00:10:10.196$ But we don't have true standards of care.

NOTE Confidence: 0.904780860666667

 $00:10:10.200 \longrightarrow 00:10:11.710$ There is really no true

NOTE Confidence: 0.904780860666667

 $00:10:11.710 \longrightarrow 00:10:13.220$ algorithm or standards of care.

NOTE Confidence: 0.904780860666667

 $00:10:13.220 \longrightarrow 00:10:14.324$ Some have been developed,

NOTE Confidence: 0.904780860666667

00:10:14.324 --> 00:10:16.644 but it really has to be thought of

NOTE Confidence: 0.904780860666667

 $00:10:16.644 \longrightarrow 00:10:18.468$ on an individual patient level and

NOTE Confidence: 0.904780860666667

 $00:10:20.437 \longrightarrow 00:10:22.393$ of people don't understand is that

NOTE Confidence: 0.904780860666667

 $00:10:22.400 \longrightarrow 00:10:24.461$ any drug ever used by any of us to

NOTE Confidence: 0.904780860666667

 $00:10:24.461 \longrightarrow 00:10:26.286$ treat these behavioral symptoms that

NOTE Confidence: 0.904780860666667

 $00:10:26.286 \longrightarrow 00:10:28.590$ dementia is by definition off label.

NOTE Confidence: 0.904780860666667

 $00:10:28.590 \dashrightarrow 00:10:30.284$ Because the FDA has yet to approve

NOTE Confidence: 0.904780860666667

 $00:10:30.284 \longrightarrow 00:10:32.062$ a single drug to manage any

NOTE Confidence: 0.904780860666667

00:10:32.062 --> 00:10:33.390 behavioral symptoms of dementia,

NOTE Confidence: 0.904780860666667

 $00:10:33.390 \longrightarrow 00:10:36.360$ or the psychosis of dementia.

NOTE Confidence: 0.904780860666667

00:10:36.360 --> 00:10:38.010 So I mentioned these definitions,

NOTE Confidence: 0.904780860666667

00:10:38.010 --> 00:10:38.704 Dilip, Jeste,

NOTE Confidence: 0.904780860666667

00:10:38.704 --> 00:10:40.786 and Sandy Finkle came up with

NOTE Confidence: 0.904780860666667

 $00{:}10{:}40.786 \dashrightarrow 00{:}10{:}42.966$ a psychosis avadi which was a

NOTE Confidence: 0.904780860666667

 $00{:}10{:}42.966 {\:{\mbox{--}}\!>}\ 00{:}10{:}44.828$ diagnostic sort of a research

NOTE Confidence: 0.904780860666667

 $00{:}10{:}44.828 \dashrightarrow 00{:}10{:}47.250$ diagnosis that was in the DSM 4

NOTE Confidence: 0.904780860666667

 $00:10:47.250 \longrightarrow 00:10:49.236$ neuro psychiatric symptoms of a D.

00:10:49.240 --> 00:10:50.038 This BPSD,

NOTE Confidence: 0.904780860666667

 $00{:}10{:}50.038 \dashrightarrow 00{:}10{:}52.432$ but most importantly is that whatever

NOTE Confidence: 0.904780860666667

 $00:10:52.432 \longrightarrow 00:10:54.897$ the acronym is or the descriptor is,

NOTE Confidence: 0.904780860666667

00:10:54.900 --> 00:10:56.587 it's really important to go down into

NOTE Confidence: 0.904780860666667

00:10:56.587 --> 00:10:58.363 the nitty gritty and like what are

NOTE Confidence: 0.904780860666667

 $00:10:58.363 \longrightarrow 00:11:00.140$ the symptoms that person is presenting with,

NOTE Confidence: 0.904780860666667

 $00:11:00.140 \longrightarrow 00:11:01.875$ because these acronyms really account

NOTE Confidence: 0.904780860666667

 $00:11:01.875 \longrightarrow 00:11:04.210$ for a whole range of symptoms.

NOTE Confidence: 0.904780860666667

00:11:04.210 --> 00:11:05.038 As I mentioned before,

NOTE Confidence: 0.904780860666667

 $00:11:05.038 \longrightarrow 00:11:06.779$ and you can see here on the slide.

NOTE Confidence: 0.902046279

 $00:11:09.750 \longrightarrow 00:11:11.652$ The the most important really take

NOTE Confidence: 0.902046279

 $00{:}11{:}11.652 \dashrightarrow 00{:}11{:}13.898$ home message from this part of the

NOTE Confidence: 0.902046279

 $00:11:13.898 \longrightarrow 00:11:15.734$ talk is that throwing medicines at

NOTE Confidence: 0.902046279

 $00:11:15.734 \longrightarrow 00:11:17.964$ patients who present with these symptoms

NOTE Confidence: 0.902046279

00:11:17.964 --> 00:11:19.829 without figuring out what's driving

NOTE Confidence: 0.902046279

 $00{:}11{:}19.830 \dashrightarrow 00{:}11{:}21.930$ these symptoms will lead to problems.

00:11:21.930 --> 00:11:24.044 And it sounds so obvious to say.

NOTE Confidence: 0.902046279

 $00{:}11{:}24.050 \dashrightarrow 00{:}11{:}25.514$ But when you're dealing with a

NOTE Confidence: 0.902046279

00:11:25.514 --> 00:11:27.218 fragile brain that's in the context

NOTE Confidence: 0.902046279

 $00:11:27.218 \longrightarrow 00:11:28.582$ of a neurodegenerative illness

NOTE Confidence: 0.902046279

00:11:28.582 --> 00:11:29.605 like Alzheimer's disease,

NOTE Confidence: 0.902046279

 $00:11:29.610 \longrightarrow 00:11:30.675$ the therapeutic index,

NOTE Confidence: 0.902046279

 $00:11:30.675 \longrightarrow 00:11:32.450$ the window for efficacy and

NOTE Confidence: 0.902046279

00:11:32.450 --> 00:11:33.972 tolerability is very, very narrow,

NOTE Confidence: 0.902046279

 $00{:}11{:}33.972 \dashrightarrow 00{:}11{:}35.659$ and so if we're going to intervene

NOTE Confidence: 0.902046279

 $00:11:35.659 \longrightarrow 00:11:37.300$ with medications when appropriate,

NOTE Confidence: 0.902046279

 $00:11:37.300 \longrightarrow 00:11:38.560$ we've got to be very careful

NOTE Confidence: 0.902046279

 $00:11:38.560 \longrightarrow 00:11:39.190$ that we're actually.

NOTE Confidence: 0.902046279

 $00{:}11{:}39.190 \dashrightarrow 00{:}11{:}41.367$ Now we're treating so the three big

NOTE Confidence: 0.902046279

 $00:11:41.367 \longrightarrow 00:11:43.521$ buckets of causes of these behavioral

NOTE Confidence: 0.902046279

00:11:43.521 --> 00:11:45.843 symptoms can be broken down into

 $00:11:45.843 \longrightarrow 00:11:47.043$ environmental precipitants like

NOTE Confidence: 0.902046279

 $00{:}11{:}47.043 \dashrightarrow 00{:}11{:}48.918$ interactions with caregivers or time

NOTE Confidence: 0.902046279

00:11:48.918 --> 00:11:52.050 of day or change in routine or noise,

NOTE Confidence: 0.902046279

 $00:11:52.050 \longrightarrow 00:11:53.174$ or even cultural issues.

NOTE Confidence: 0.902046279

 $00:11:53.174 \longrightarrow 00:11:55.492$ The way in which a loved one will

NOTE Confidence: 0.902046279

 $00:11:55.492 \longrightarrow 00:11:57.208$ speak to their spouse with dementia

NOTE Confidence: 0.902046279

 $00{:}11{:}57.208 \dashrightarrow 00{:}11{:}59.223$ and a person with dementia doesn't

NOTE Confidence: 0.902046279

 $00:11:59.223 \longrightarrow 00:12:01.796$ understand where they are or or who

NOTE Confidence: 0.902046279

 $00{:}12{:}01.796 \mathrel{--}{>} 00{:}12{:}03.567$ their spouses and they start asking the

NOTE Confidence: 0.902046279

00:12:03.567 --> 00:12:05.367 same questions over and over again,

NOTE Confidence: 0.902046279

 $00{:}12{:}05.370 \dashrightarrow 00{:}12{:}06.936$ and the spouse themselves is feeling

NOTE Confidence: 0.902046279

 $00:12:06.936 \longrightarrow 00:12:08.629$ exhausted and burned out and depressed.

NOTE Confidence: 0.902046279

 $00:12:08.630 \longrightarrow 00:12:09.450$ And before you know it.

NOTE Confidence: 0.902046279

 $00:12:09.450 \longrightarrow 00:12:10.728$ They're having arguments.

NOTE Confidence: 0.902046279

00:12:10.728 --> 00:12:12.858 Those things don't require necessarily

NOTE Confidence: 0.902046279

00:12:12.858 --> 00:12:14.290 medications, but a lot of caregivers,

 $00:12:14.290 \longrightarrow 00:12:16.900$ support education, etc.

NOTE Confidence: 0.902046279

 $00:12:16.900 \longrightarrow 00:12:18.444$ Medical causes in fact.

NOTE Confidence: 0.902046279

00:12:18.444 --> 00:12:19.216 The first,

NOTE Confidence: 0.902046279

 $00:12:19.220 \longrightarrow 00:12:20.852$ second and third things we look

NOTE Confidence: 0.902046279

 $00:12:20.852 \longrightarrow 00:12:22.855$ for when we see a patient like

NOTE Confidence: 0.902046279

 $00:12:22.855 \longrightarrow 00:12:24.553$ the one I described is might.

NOTE Confidence: 0.902046279

 $00:12:24.560 \longrightarrow 00:12:27.096$ May there be an infection or a new

NOTE Confidence: 0.902046279

 $00:12:27.096 \longrightarrow 00:12:28.608$ medication accounting for the side effect?

NOTE Confidence: 0.902046279

00:12:28.610 --> 00:12:29.590 Or maybe they're drinking

NOTE Confidence: 0.902046279

 $00:12:29.590 \longrightarrow 00:12:30.815$ alcohol or some other drugs.

NOTE Confidence: 0.902046279

 $00:12:30.820 \longrightarrow 00:12:32.890$ Or maybe they've got an electrolyte

NOTE Confidence: 0.902046279

 $00:12:32.890 \longrightarrow 00:12:33.925$ disturbance where their

NOTE Confidence: 0.902046279

 $00{:}12{:}33.925 \dashrightarrow 00{:}12{:}35.439$ diabetes isn't well controlled,

NOTE Confidence: 0.902046279

 $00:12:35.440 \longrightarrow 00:12:37.336$ so that's what we're looking for in pain.

NOTE Confidence: 0.902046279

00:12:37.340 --> 00:12:40.436 And during the first wave of this pandemic,

 $00:12:40.440 \longrightarrow 00:12:42.510$ back in the winter of 2020,

NOTE Confidence: 0.902046279

 $00:12:42.510 \longrightarrow 00:12:45.228$ we saw a number of older

NOTE Confidence: 0.902046279

00:12:45.228 --> 00:12:46.587 patients presenting with.

NOTE Confidence: 0.902046279

 $00:12:46.590 \longrightarrow 00:12:47.692$ Delirium, agitation,

NOTE Confidence: 0.902046279

00:12:47.692 --> 00:12:48.243 confusion,

NOTE Confidence: 0.902046279

 $00:12:48.243 \longrightarrow 00:12:51.549$ etc superimposed on dementia as the

NOTE Confidence: 0.902046279

00:12:51.549 --> 00:12:54.149 first manifestation of COVID-19,

NOTE Confidence: 0.902046279

 $00:12:54.150 \longrightarrow 00:12:55.238$ which was very interesting.

NOTE Confidence: 0.902046279

 $00:12:55.238 \longrightarrow 00:12:57.552$ And we've we've seen and now know a

NOTE Confidence: 0.902046279

00:12:57.552 --> 00:12:59.430 lot more about the neuro psychiatric

NOTE Confidence: 0.902046279

 $00{:}12{:}59.430 \dashrightarrow 00{:}13{:}00.740$ manifestations of this illness.

NOTE Confidence: 0.902046279

 $00:13:00.740 \longrightarrow 00:13:01.976$ And then finally, psychiatric.

NOTE Confidence: 0.902046279

 $00:13:01.976 \longrightarrow 00:13:04.500$ And the reason I bring this up is 2 fold.

NOTE Confidence: 0.902046279

 $00:13:04.500 \longrightarrow 00:13:05.226$ One is,

NOTE Confidence: 0.902046279

 $00:13:05.226 \longrightarrow 00:13:07.041$ it's really important to gather

NOTE Confidence: 0.902046279

 $00:13:07.041 \longrightarrow 00:13:09.182$ a pre-existing or prior to the

 $00:13:09.182 \longrightarrow 00:13:10.169$ onset of dementia.

NOTE Confidence: 0.902046279

 $00:13:10.170 \longrightarrow 00:13:12.060$ Psychiatric history from a family

NOTE Confidence: 0.902046279

 $00:13:12.060 \longrightarrow 00:13:14.430$ member or from some collateral source.

NOTE Confidence: 0.902046279

00:13:14.430 --> 00:13:16.236 Because what you might be seeing is

NOTE Confidence: 0.902046279

 $00:13:16.236 \longrightarrow 00:13:17.695$ somebody who's aging with bipolar

NOTE Confidence: 0.902046279

00:13:17.695 --> 00:13:19.597 disorder who's now got cognitive problems.

NOTE Confidence: 0.902046279

00:13:19.600 --> 00:13:22.174 Or you might be seeing somebody who

NOTE Confidence: 0.902046279

00:13:22.174 --> 00:13:23.698 never had a psychiatric problem and

NOTE Confidence: 0.902046279

00:13:23.698 --> 00:13:25.443 now now is experiencing Alzheimer's

NOTE Confidence: 0.902046279

 $00{:}13{:}25.443 \dashrightarrow 00{:}13{:}27.295$ disease with superimpose behavioral

NOTE Confidence: 0.902046279

00:13:27.295 --> 00:13:29.494 complications and the approach to

NOTE Confidence: 0.902046279

 $00:13:29.494 \longrightarrow 00:13:31.240$ treatment may very well be different.

NOTE Confidence: 0.902046279

 $00{:}13{:}31.240 \dashrightarrow 00{:}13{:}32.760$ I'll also tell you a little vignette here,

NOTE Confidence: 0.902046279

00:13:32.760 --> 00:13:33.546 because this story,

NOTE Confidence: 0.902046279

00:13:33.546 --> 00:13:35.118 which I this was a patient,

00:13:35.120 --> 00:13:36.872 I saw very early on in my career

NOTE Confidence: 0.902046279

00:13:36.872 --> 00:13:38.619 in a nursing home setting,

NOTE Confidence: 0.902046279

00:13:38.620 --> 00:13:40.988 taught me a lot about the importance of

NOTE Confidence: 0.902046279

 $00:13:40.988 \longrightarrow 00:13:42.299$ collateral information and diagnosis.

NOTE Confidence: 0.902046279

 $00:13:42.300 \longrightarrow 00:13:44.008$ So I was working at the mental

NOTE Confidence: 0.902046279

00:13:44.008 --> 00:13:45.779 Health Center of Greater Manchester,

NOTE Confidence: 0.902046279

00:13:45.780 --> 00:13:47.436 NH on the faculty at Dartmouth,

NOTE Confidence: 0.902046279

 $00:13:47.440 \longrightarrow 00:13:49.344$ and I was assigned to work in

NOTE Confidence: 0.902046279

 $00:13:49.344 \longrightarrow 00:13:50.450$ this nursing home and.

NOTE Confidence: 0.902046279

 $00:13:50.450 \longrightarrow 00:13:51.608$ One of the first days I

NOTE Confidence: 0.902046279

00:13:51.608 --> 00:13:52.380 actually worked in this

NOTE Confidence: 0.8816018725

 $00{:}13{:}52.425 \dashrightarrow 00{:}13{:}55.046$ nursing home, I was asked to see this woman.

NOTE Confidence: 0.8816018725

 $00:13:55.050 \longrightarrow 00:13:57.448$ Who is 53 at the time and she was in a

NOTE Confidence: 0.8816018725

 $00:13:57.448 \longrightarrow 00:13:59.528$ locked dementia unit and all I knew is

NOTE Confidence: 0.8816018725

 $00:13:59.528 \longrightarrow 00:14:02.016$ that she had been hospitalized for a week

NOTE Confidence: 0.8816018725

 $00:14:02.016 \longrightarrow 00:14:04.130$ before in the General Medical Hospital.

00:14:04.130 --> 00:14:05.908 After a syncopal episode at home was

NOTE Confidence: 0.8816018725

00:14:05.908 --> 00:14:07.894 found to be dehydrated and was

NOTE Confidence: 0.8816018725

 $00:14:07.894 \longrightarrow 00:14:10.045$ admitted to the hospital and now she

NOTE Confidence: 0.8816018725

 $00:14:10.045 \longrightarrow 00:14:12.109$ was diagnosed with picks disease or

NOTE Confidence: 0.8816018725

 $00{:}14{:}12.109 \dashrightarrow 00{:}14{:}14.166$ frontal temporal dementia variant and

NOTE Confidence: 0.8816018725

00:14:14.166 --> 00:14:16.706 she wasn't cooperative with anything.

NOTE Confidence: 0.8816018725

00:14:16.710 --> 00:14:18.750 She wasn't eating drinking,

NOTE Confidence: 0.8816018725

00:14:18.750 --> 00:14:20.790 not cooperating with activities.

NOTE Confidence: 0.8816018725

 $00:14:20.790 \longrightarrow 00:14:21.662$ So I saw her.

NOTE Confidence: 0.8816018725

 $00:14:21.662 \longrightarrow 00:14:22.970$ She's standing in the hallway and

NOTE Confidence: 0.8816018725

 $00:14:23.026 \longrightarrow 00:14:24.587$ she was first of all about 30

NOTE Confidence: 0.8816018725

 $00:14:24.587 \longrightarrow 00:14:25.960$ years younger than everyone else.

NOTE Confidence: 0.8816018725

 $00{:}14{:}25.960 \dashrightarrow 00{:}14{:}28.450$ Which I thought was strange.

NOTE Confidence: 0.8816018725

 $00:14:28.450 \longrightarrow 00:14:30.402$ I walked up to her and she had

NOTE Confidence: 0.8816018725

 $00:14:30.402 \longrightarrow 00:14:31.950$ absolutely no facial expression.

00:14:31.950 --> 00:14:34.169 She was completely mute and when I

NOTE Confidence: 0.8816018725

 $00:14:34.169 \longrightarrow 00:14:36.909$ went in the hallway to do a brief

NOTE Confidence: 0.8816018725

00:14:36.909 --> 00:14:39.994 neurological exam on her and I did some

NOTE Confidence: 0.8816018725

 $00:14:39.994 \longrightarrow 00:14:42.144$ assessment of upper extremity mobility.

NOTE Confidence: 0.8816018725

 $00:14:42.150 \longrightarrow 00:14:43.788$ She left her hand up like this.

NOTE Confidence: 0.8816018725

 $00:14:43.790 \longrightarrow 00:14:44.861$ She was catalepsy.

NOTE Confidence: 0.8816018725

00:14:44.861 --> 00:14:47.990 I thought maybe you know this is unusual.

NOTE Confidence: 0.8816018725

 $00:14:47.990 \longrightarrow 00:14:49.626$ Neurological manifestation of catatonia,

NOTE Confidence: 0.8816018725

00:14:49.626 --> 00:14:52.709 but there's no psych history in her chart,

NOTE Confidence: 0.8816018725

00:14:52.710 --> 00:14:54.310 so I called her husband and I said,

NOTE Confidence: 0.8816018725

00:14:54.310 --> 00:14:55.689 Bob, what's going on with your wife?

NOTE Confidence: 0.8816018725

 $00:14:55.690 \longrightarrow 00:14:56.546$ And he said, well,

NOTE Confidence: 0.8816018725

 $00:14:56.546 \longrightarrow 00:14:57.830$ we've been married for 30 years,

NOTE Confidence: 0.8816018725

 $00:14:57.830 \longrightarrow 00:14:59.350$ and she's got bipolar disorder,

NOTE Confidence: 0.8816018725

 $00:14:59.350 \longrightarrow 00:15:00.496$ and she was doing pretty well

NOTE Confidence: 0.8816018725

 $00:15:00.496 \longrightarrow 00:15:02.026$ until a few weeks ago, when she?

00:15:02.026 --> 00:15:03.694 Started but I thought was getting

NOTE Confidence: 0.8816018725

 $00:15:03.694 \longrightarrow 00:15:05.372$ depressed and wasn't talking to us

NOTE Confidence: 0.8816018725

00:15:05.372 --> 00:15:06.980 much and wasn't eating or drinking

NOTE Confidence: 0.8816018725

 $00:15:07.033 \longrightarrow 00:15:08.531$ very well and she passed out one

NOTE Confidence: 0.8816018725

 $00:15:08.531 \longrightarrow 00:15:10.180$ day and now they tell me she has

NOTE Confidence: 0.8816018725

 $00:15:10.180 \longrightarrow 00:15:11.382$ end stage dementia and she's at

NOTE Confidence: 0.8816018725

 $00:15:11.382 \longrightarrow 00:15:12.614$ the end of her life and I said,

NOTE Confidence: 0.8816018725

 $00:15:12.620 \longrightarrow 00:15:13.700$ well you know Bob,

NOTE Confidence: 0.8816018725

 $00:15:13.700 \longrightarrow 00:15:15.320$ it may be a manifestation of

NOTE Confidence: 0.8816018725

 $00{:}15{:}15.384 \rightarrow 00{:}15{:}17.399$ bipolar disorder we call catatonia,

NOTE Confidence: 0.8816018725

 $00:15:17.400 \longrightarrow 00:15:19.524$ and so we had our hospitalized

NOTE Confidence: 0.8816018725

 $00:15:19.524 \longrightarrow 00:15:20.940$ and she had ECT.

NOTE Confidence: 0.8816018725

 $00:15:20.940 \longrightarrow 00:15:22.290$ And and she became my outpatient

NOTE Confidence: 0.8816018725

 $00:15:22.290 \longrightarrow 00:15:24.000$ for the next five years because she

NOTE Confidence: 0.8816018725

 $00:15:24.000 \longrightarrow 00:15:25.530$ went back to her normal baseline,

 $00:15:25.530 \longrightarrow 00:15:27.830$ which was essentially euthymic

NOTE Confidence: 0.8816018725

 $00{:}15{:}27.830 --> 00{:}15{:}28.980 \ without \ catatonia,$

NOTE Confidence: 0.8816018725

 $00:15:28.980 \longrightarrow 00:15:30.725$ with some mild executive dysfunction

NOTE Confidence: 0.8816018725

 $00:15:30.725 \longrightarrow 00:15:32.470$ and some delayed recall problems,

NOTE Confidence: 0.8816018725

 $00:15:32.470 \longrightarrow 00:15:33.946$ which improved with prompting.

NOTE Confidence: 0.8816018725

 $00:15:33.946 \longrightarrow 00:15:35.791$ But she certainly didn't have

NOTE Confidence: 0.8816018725

 $00:15:35.791 \longrightarrow 00:15:37.610$ advanced frontal temporal dementia.

NOTE Confidence: 0.8816018725

 $00{:}15{:}37.610 \dashrightarrow 00{:}15{:}38.968$ I learned a lot from this case.

NOTE Confidence: 0.8816018725

 $00:15:38.970 \longrightarrow 00:15:40.349$ One thing was which you read in

NOTE Confidence: 0.8816018725

 $00:15:40.349 \longrightarrow 00:15:41.747$ a medical record is what you read

NOTE Confidence: 0.8816018725

 $00:15:41.747 \longrightarrow 00:15:42.507$ in a medical record.

NOTE Confidence: 0.8816018725

 $00:15:42.510 \longrightarrow 00:15:44.130$ And even with emr's these days,

NOTE Confidence: 0.8816018725

 $00:15:44.130 \longrightarrow 00:15:46.125$ we know how those cannot be complete.

NOTE Confidence: 0.8816018725

 $00{:}15{:}46.130 \dashrightarrow 00{:}15{:}47.846$ It's not that they're wrong necessarily,

NOTE Confidence: 0.8816018725

00:15:47.850 --> 00:15:50.146 but they're just not complete all the time,

NOTE Confidence: 0.8816018725

 $00:15:50.150 \longrightarrow 00:15:51.435$ and there's really nothing that

00:15:51.435 --> 00:15:52.720 substitutes getting a really good

NOTE Confidence: 0.8816018725

 $00:15:52.762 \longrightarrow 00:15:53.907$ history from a family member.

NOTE Confidence: 0.8816018725

00:15:53.910 --> 00:15:55.146 And then finally,

NOTE Confidence: 0.8816018725

00:15:55.146 --> 00:15:56.794 people with acute psychiatric

NOTE Confidence: 0.8816018725

00:15:56.794 --> 00:15:58.730 illness like this woman had.

NOTE Confidence: 0.8816018725

 $00:15:58.730 \longrightarrow 00:16:00.782$ It's impossible to know what their

NOTE Confidence: 0.8816018725

 $00:16:00.782 \longrightarrow 00:16:02.150$ baseline cognitive functioning is.

NOTE Confidence: 0.8816018725

 $00:16:02.150 \longrightarrow 00:16:03.932$ And until you treat that you

NOTE Confidence: 0.8816018725

 $00:16:03.932 \longrightarrow 00:16:05.590$ don't really know what they're

NOTE Confidence: 0.8816018725

 $00{:}16{:}05.590 \dashrightarrow 00{:}16{:}07.510$ what the underlying baseline.

NOTE Confidence: 0.8816018725

 $00{:}16{:}07.510 \dashrightarrow 00{:}16{:}09.430$ A cognitive functioning maybe.

NOTE Confidence: 0.8816018725

 $00{:}16{:}09.430 \dashrightarrow 00{:}16{:}10.910$ So those are the three buckets of causes

NOTE Confidence: 0.8816018725

 $00{:}16{:}10.910 \dashrightarrow 00{:}16{:}12.404$ and keep that in mind as we go through

NOTE Confidence: 0.8816018725

 $00:16:12.404 \longrightarrow 00:16:13.700$ some of the treatment approaches.

NOTE Confidence: 0.8816018725

 $00:16:13.700 \longrightarrow 00:16:14.570$ So our colleagues,

00:16:14.570 --> 00:16:16.600 Helen Cals and others at the University

NOTE Confidence: 0.8816018725

 $00:16:16.650 \longrightarrow 00:16:18.696$ of Michigan developed this dice approach,

NOTE Confidence: 0.8816018725

 $00:16:18.700 \longrightarrow 00:16:21.116$ which was now published a few years ago

NOTE Confidence: 0.91318261

 $00:16:21.120 \longrightarrow 00:16:22.128$ in Jags. And this.

NOTE Confidence: 0.91318261

 $00:16:22.128 \longrightarrow 00:16:23.136$ This approach is really

NOTE Confidence: 0.91318261

 $00{:}16{:}23.136 \dashrightarrow 00{:}16{:}24.719$ what I just told you about.

NOTE Confidence: 0.91318261

 $00:16:24.720 \longrightarrow 00:16:26.728$ It's like a it's just a systematic way

NOTE Confidence: 0.91318261

 $00{:}16{:}26.728 \dashrightarrow 00{:}16{:}28.358$ of assessing describing the behavior

NOTE Confidence: 0.91318261

00:16:28.358 --> 00:16:30.143 you're seeing when it's happening,

NOTE Confidence: 0.91318261

 $00:16:30.150 \longrightarrow 00:16:31.898$ where what's provoking it,

NOTE Confidence: 0.91318261

00:16:31.898 --> 00:16:33.209 investigating the etiology,

NOTE Confidence: 0.91318261

 $00:16:33.210 \longrightarrow 00:16:34.358$ and you can see on the slide.

NOTE Confidence: 0.91318261

 $00:16:34.360 \longrightarrow 00:16:35.504$ There are many things,

NOTE Confidence: 0.91318261

 $00:16:35.504 \longrightarrow 00:16:36.934$ many of which I mentioned.

NOTE Confidence: 0.91318261

00:16:36.940 --> 00:16:38.328 Constipation, pain,

NOTE Confidence: 0.91318261

00:16:38.328 --> 00:16:40.410 medical problems, etc.

00:16:40.410 --> 00:16:42.242 And then create a treatment plan and that

NOTE Confidence: 0.91318261

 $00:16:42.242 \longrightarrow 00:16:44.397$ could be both behavioral and pharmacological.

NOTE Confidence: 0.91318261

00:16:44.400 --> 00:16:45.036 And very importantly,

NOTE Confidence: 0.91318261

 $00:16:45.036 \longrightarrow 00:16:46.520$ this is something we're not good at.

NOTE Confidence: 0.91318261

00:16:46.520 --> 00:16:48.424 In psychiatry is collecting

NOTE Confidence: 0.91318261

 $00{:}16{:}48.424 \dashrightarrow 00{:}16{:}50.559$ objective data on symptom, severity,

NOTE Confidence: 0.91318261

00:16:50.559 --> 00:16:52.524 frequency and impact on caregivers,

NOTE Confidence: 0.91318261

 $00:16:52.530 \longrightarrow 00:16:54.984$ and then see how our treatment

NOTE Confidence: 0.91318261

 $00:16:54.984 \longrightarrow 00:16:56.620$ interventions actually impact outcomes.

NOTE Confidence: 0.91318261

 $00{:}16{:}56.620 {\:\dashrightarrow\:} 00{:}16{:}58.104$ So there are a number of measures

NOTE Confidence: 0.91318261

 $00:16:58.104 \longrightarrow 00:16:59.720$ that we can use to assess

NOTE Confidence: 0.91318261

 $00{:}16{:}59.720 \dashrightarrow 00{:}17{:}00.960$ behavioral symptoms in dementia.

NOTE Confidence: 0.91318261

 $00:17:00.960 \longrightarrow 00:17:02.800$ The one that's most widely

NOTE Confidence: 0.91318261

 $00:17:02.800 \longrightarrow 00:17:04.640$ used now in clinical trials.

NOTE Confidence: 0.91318261

 $00:17:04.640 \longrightarrow 00:17:06.200$ And we're trying to implement

00:17:06.200 --> 00:17:07.448 now in population settings,

NOTE Confidence: 0.91318261

 $00:17:07.450 \longrightarrow 00:17:09.250$ is the neuro psychiatric inventory.

NOTE Confidence: 0.91318261

00:17:09.250 --> 00:17:11.421 There's a version of it called the NPIQ,

NOTE Confidence: 0.91318261

 $00:17:11.421 \longrightarrow 00:17:13.767$ which is shorter, but it's burdensome.

NOTE Confidence: 0.91318261

 $00:17:13.770 \longrightarrow 00:17:14.750$ It takes a little time,

NOTE Confidence: 0.91318261

 $00:17:14.750 \longrightarrow 00:17:17.220$ but what's nice about the NPIQ is

NOTE Confidence: 0.91318261

00:17:17.220 --> 00:17:20.190 you're assessing 12 domains of behavior,

NOTE Confidence: 0.91318261

00:17:20.190 --> 00:17:21.086 mood, psychosis,

NOTE Confidence: 0.91318261 00:17:21.086 --> 00:17:21.534 etc, NOTE Confidence: 0.91318261

 $00:17:21.534 \longrightarrow 00:17:24.222$ and the impact of this behavior

NOTE Confidence: 0.91318261

 $00:17:24.222 \longrightarrow 00:17:26.190$ on on the caregivers.

NOTE Confidence: 0.91318261

 $00:17:26.190 \longrightarrow 00:17:28.990$ Well being so that that is a

NOTE Confidence: 0.91318261

 $00:17:28.990 \longrightarrow 00:17:30.190$ really useful instrument.

NOTE Confidence: 0.91318261

 $00:17:30.190 \longrightarrow 00:17:32.295$ But implementing this in in

NOTE Confidence: 0.91318261

 $00:17:32.295 \longrightarrow 00:17:33.979$ traditional clinical care is

NOTE Confidence: 0.91318261

 $00:17:33.979 \longrightarrow 00:17:36.329$ is way easier said than done.

 $00:17:36.330 \longrightarrow 00:17:37.807$ This is not a talk where I'm

NOTE Confidence: 0.91318261

 $00{:}17{:}37.807 \dashrightarrow 00{:}17{:}39.572$ going to go through an exhaustive

NOTE Confidence: 0.91318261

 $00:17:39.572 \longrightarrow 00:17:41.357$ series of studies on behavioral.

NOTE Confidence: 0.91318261

00:17:41.360 --> 00:17:44.282 You know interventions for or non

NOTE Confidence: 0.91318261

 $00:17:44.282 \longrightarrow 00:17:45.256$ pharmacological interventions

NOTE Confidence: 0.91318261

 $00:17:45.256 \longrightarrow 00:17:46.929$ for patients with dementia

NOTE Confidence: 0.91318261

 $00:17:46.929 \longrightarrow 00:17:48.108$ and behavioral symptoms,

NOTE Confidence: 0.91318261

 $00{:}17{:}48.110 \dashrightarrow 00{:}17{:}50.118$ but I really want to call this out

NOTE Confidence: 0.91318261

00:17:50.118 --> 00:17:51.573 because before we intervene with

NOTE Confidence: 0.91318261

 $00{:}17{:}51.573 \dashrightarrow 00{:}17{:}53.361$ medicines and let's unless it's an

NOTE Confidence: 0.91318261

 $00{:}17{:}53.361 \dashrightarrow 00{:}17{:}55.147$ acute crisis with safety concerns,

NOTE Confidence: 0.91318261

 $00:17:55.150 \longrightarrow 00:17:57.260$ we need to intervene first

NOTE Confidence: 0.91318261

 $00{:}17{:}57.260 \dashrightarrow 00{:}17{:}58.526$ with behavioral interventions,

NOTE Confidence: 0.91318261

 $00:17:58.530 \longrightarrow 00:18:00.447$ and those could be and the way I think

NOTE Confidence: 0.91318261

 $00:18:00.447 \longrightarrow 00:18:02.270$ about it is you've got to be creative.

 $00:18:02.270 \longrightarrow 00:18:03.770$ It's got to be individualized.

NOTE Confidence: 0.91318261

 $00:18:03.770 \dashrightarrow 00:18:05.506$ Every study that's looked at this is said.

NOTE Confidence: 0.91318261

 $00:18:05.510 \longrightarrow 00:18:06.926$ It's not one size fits all.

NOTE Confidence: 0.91318261

 $00:18:06.930 \longrightarrow 00:18:07.432$ It's very.

NOTE Confidence: 0.91318261

00:18:07.432 --> 00:18:07.683 Individualized,

NOTE Confidence: 0.91318261

00:18:07.683 --> 00:18:10.000 and then if you look at the literature,

NOTE Confidence: 0.91318261

 $00:18:10.000 \longrightarrow 00:18:11.806$ you'll be disappointed because you'll see

NOTE Confidence: 0.91318261

 $00:18:11.806 \longrightarrow 00:18:13.803$ some studies that are not well designed.

NOTE Confidence: 0.91318261

 $00:18:13.803 \longrightarrow 00:18:15.981$ It's hard to have a control

NOTE Confidence: 0.91318261

00:18:15.981 --> 00:18:17.410 group and they're not that large,

NOTE Confidence: 0.91318261

00:18:17.410 --> 00:18:18.422 but they've been published

NOTE Confidence: 0.91318261

00:18:18.422 --> 00:18:19.434 in some good journals.

NOTE Confidence: 0.91318261

00:18:19.440 --> 00:18:19.903 Actually,

NOTE Confidence: 0.91318261

 $00:18:19.903 \longrightarrow 00:18:22.681$ the two areas that I really

NOTE Confidence: 0.91318261

 $00:18:22.681 \longrightarrow 00:18:24.560$ wanted to highlight here.

NOTE Confidence: 0.91318261

 $00:18:24.560 \longrightarrow 00:18:27.668$ Our are the activities and the exercise,

 $00:18:27.670 \longrightarrow 00:18:28.780$ so exercise,

NOTE Confidence: 0.91318261

 $00:18:28.780 \longrightarrow 00:18:31.000$ exercise and incredibly helpful

NOTE Confidence: 0.91318261

00:18:31.000 --> 00:18:32.625 intervention that might not only help

NOTE Confidence: 0.91318261

 $00:18:32.625 \longrightarrow 00:18:34.501$ us with our own brains as we age in

NOTE Confidence: 0.91318261

 $00:18:34.501 \longrightarrow 00:18:36.240$ terms of reducing the risk of Alzheimer's,

NOTE Confidence: 0.91318261

 $00:18:36.240 \longrightarrow 00:18:38.390$ but may also ameliorate some

NOTE Confidence: 0.91318261

 $00:18:38.390 \longrightarrow 00:18:40.540$ of the agitation anxiety that

NOTE Confidence: 0.91318261

 $00{:}18{:}40.615 \dashrightarrow 00{:}18{:}42.840$ goes along with with dementia.

NOTE Confidence: 0.91318261

 $00:18:42.840 \longrightarrow 00:18:44.448$ And then there's the impact that

NOTE Confidence: 0.91318261

 $00{:}18{:}44.448 \longrightarrow 00{:}18{:}46.361$ you can have on caregivers because

NOTE Confidence: 0.91318261

 $00:18:46.361 \longrightarrow 00:18:48.707$ a lot of these precipitants to

NOTE Confidence: 0.91318261

 $00:18:48.707 \longrightarrow 00:18:50.218$ behavioral outbursts are often

NOTE Confidence: 0.91318261

00:18:50.218 --> 00:18:51.558 driven by the environment,

NOTE Confidence: 0.91318261

 $00:18:51.560 \longrightarrow 00:18:52.720$ which may be the caregivers,

NOTE Confidence: 0.91318261

 $00:18:52.720 \longrightarrow 00:18:54.430$ could be nurses and long.

 $00:18:54.430 \longrightarrow 00:18:56.260$ Long term care facilities nurses aides.

NOTE Confidence: 0.91318261

 $00{:}18{:}56.260 \dashrightarrow 00{:}18{:}57.928$ It could be family members at home, etc.

NOTE Confidence: 0.91318261 00:18:57.928 --> 00:18:58.296 So, NOTE Confidence: 0.91318261

 $00:18:58.296 \longrightarrow 00:19:00.872$ but there's a ton of need for

NOTE Confidence: 0.91318261

 $00:19:00.872 \longrightarrow 00:19:03.217$ good research in this area,

NOTE Confidence: 0.91318261

 $00:19:03.220 \longrightarrow 00:19:05.110$ and every guideline that you will

NOTE Confidence: 0.91318261

 $00:19:05.110 \longrightarrow 00:19:07.274$ read will say before you do anything

NOTE Confidence: 0.91318261

 $00{:}19{:}07.274 \dashrightarrow 00{:}19{:}09.234$ with medicine you want to do non

NOTE Confidence: 0.918069955454546

 $00{:}19{:}09.297 \dashrightarrow 00{:}19{:}11.049$ pharmacological interventions.

NOTE Confidence: 0.918069955454546

 $00:19:11.050 \longrightarrow 00:19:12.787$ So the the next main part of this

NOTE Confidence: 0.918069955454546

 $00{:}19{:}12.787 \dashrightarrow 00{:}19{:}14.720$ talk is really to focus on evidence

NOTE Confidence: 0.918069955454546

00:19:14.720 --> 00:19:16.101 based pharmacotherapy and then I'll

NOTE Confidence: 0.918069955454546

 $00:19:16.101 \dashrightarrow 00:19:17.964$ talk a little bit about some of the work

NOTE Confidence: 0.918069955454546

 $00:19:17.970 \longrightarrow 00:19:19.804$ we're doing for some of the symptoms

NOTE Confidence: 0.918069955454546

 $00:19:19.804 \longrightarrow 00:19:21.650$ that are more difficult to treat.

NOTE Confidence: 0.918069955454546

 $00:19:21.650 \dashrightarrow 00:19:24.914$ Now focus mostly here on the NSA koteks.

00:19:24.920 --> 00:19:26.360 And primarily because they're.

NOTE Confidence: 0.918069955454546

 $00:19:26.360 \longrightarrow 00:19:27.800$ They're the best studied.

NOTE Confidence: 0.918069955454546

00:19:27.800 --> 00:19:29.428 Frankly, class of drugs,

NOTE Confidence: 0.918069955454546

 $00:19:29.428 \longrightarrow 00:19:31.056$ and they're there's tremendous

NOTE Confidence: 0.918069955454546

 $00:19:31.056 \longrightarrow 00:19:32.500$ controversy with their use.

NOTE Confidence: 0.918069955454546

 $00:19:32.500 \longrightarrow 00:19:34.103$ It may be the most controversial thing

NOTE Confidence: 0.918069955454546

 $00:19:34.103 \longrightarrow 00:19:35.542$ that we have in geriatric psychiatry

NOTE Confidence: 0.918069955454546

 $00:19:35.542 \longrightarrow 00:19:37.777$ is that when to use and when not to

NOTE Confidence: 0.918069955454546

 $00{:}19{:}37.777 \dashrightarrow 00{:}19{:}39.157$ use antipsychotics and older adults,

NOTE Confidence: 0.918069955454546

 $00:19:39.160 \longrightarrow 00:19:40.220$ but specifically in dementia.

NOTE Confidence: 0.918069955454546

 $00:19:40.220 \longrightarrow 00:19:42.555$ So I want to give you a sense of

NOTE Confidence: 0.918069955454546

 $00:19:42.555 \longrightarrow 00:19:44.158$ what the data shows first of all,

NOTE Confidence: 0.918069955454546

 $00{:}19{:}44.160 \dashrightarrow 00{:}19{:}45.350$ with the limitations are what

NOTE Confidence: 0.918069955454546

 $00:19:45.350 \longrightarrow 00:19:46.540$ we can learn from it,

NOTE Confidence: 0.918069955454546

 $00:19:46.540 \longrightarrow 00:19:48.360$ how we apply it in clinical practice,

 $00:19:48.360 \longrightarrow 00:19:49.530$ and then the warnings that

NOTE Confidence: 0.918069955454546

 $00{:}19{:}49.530 \dashrightarrow 00{:}19{:}51.159$ the FDA put out now in 2005.

NOTE Confidence: 0.918069955454546

00:19:51.160 --> 00:19:52.992 And I'll talk a little bit about some

NOTE Confidence: 0.918069955454546

 $00:19:52.992 \longrightarrow 00:19:55.169$ of the other classes in particular the.

NOTE Confidence: 0.918069955454546

00:19:55.170 --> 00:19:57.960 Antidepressants.

NOTE Confidence: 0.918069955454546

 $00:19:57.960 \longrightarrow 00:19:59.717$ So this is such a basic statement.

NOTE Confidence: 0.918069955454546

 $00:19:59.720 \longrightarrow 00:20:01.000$ I hate to mention it to this crowd,

NOTE Confidence: 0.918069955454546

 $00:20:01.000 \longrightarrow 00:20:02.100$ but it's something that happens

NOTE Confidence: 0.918069955454546

 $00:20:02.100 \longrightarrow 00:20:03.200$ all the time in psychiatry.

NOTE Confidence: 0.918069955454546

00:20:03.200 --> 00:20:03.920 You know, it's a Mrs.

NOTE Confidence: 0.918069955454546

 $00:20:03.920 \longrightarrow 00:20:05.696$ Jones has psychosis or the Mrs.

NOTE Confidence: 0.918069955454546

 $00:20:05.700 \longrightarrow 00:20:06.372$ Jones is psychotic.

NOTE Confidence: 0.918069955454546

 $00:20:06.372 \longrightarrow 00:20:06.596$ Well,

NOTE Confidence: 0.918069955454546

 $00:20:06.596 \longrightarrow 00:20:07.716$ what does that even mean?

NOTE Confidence: 0.918069955454546

 $00:20:07.720 \longrightarrow 00:20:09.496$ It's like saying where she has

NOTE Confidence: 0.918069955454546

 $00:20:09.496 \longrightarrow 00:20:10.384$ a psychotic disorder.

 $00:20:10.390 \longrightarrow 00:20:11.270$ It's like saying that Mrs.

NOTE Confidence: 0.918069955454546

 $00:20:11.270 \longrightarrow 00:20:13.475$ Jones has a cough disorder and it could be.

NOTE Confidence: 0.918069955454546

 $00:20:13.480 \longrightarrow 00:20:14.344$ It could be cancer,

NOTE Confidence: 0.918069955454546

00:20:14.344 --> 00:20:16.190 or you've got something stuck in your throat,

NOTE Confidence: 0.918069955454546

 $00:20:16.190 \longrightarrow 00:20:17.653$ or you've got an allergic reaction and

NOTE Confidence: 0.918069955454546

 $00:20:17.653 \longrightarrow 00:20:19.020$ the approach is totally different.

NOTE Confidence: 0.918069955454546

 $00:20:19.020 \longrightarrow 00:20:20.488$ So in older adults,

NOTE Confidence: 0.918069955454546

 $00:20:20.488 \longrightarrow 00:20:22.690$ although we may describe how someone

NOTE Confidence: 0.918069955454546

 $00{:}20{:}22.759 \dashrightarrow 00{:}20{:}25.118$ is doing with a variety of symptoms,

NOTE Confidence: 0.918069955454546

 $00:20:25.120 \longrightarrow 00:20:26.830$ we've got to figure out the

NOTE Confidence: 0.918069955454546

 $00{:}20{:}26.830 \dashrightarrow 00{:}20{:}28.328$ underlying diagnosis or we'll get

NOTE Confidence: 0.918069955454546

 $00:20:28.328 \longrightarrow 00:20:29.868$ lost very quickly with treatment.

NOTE Confidence: 0.918069955454546

 $00{:}20{:}29.870 \dashrightarrow 00{:}20{:}31.669$ So we know what the diagnosis of

NOTE Confidence: 0.918069955454546

 $00:20:31.669 \longrightarrow 00:20:33.470$ psychosis is, but it it's a symptom.

NOTE Confidence: 0.918069955454546

 $00:20:33.470 \longrightarrow 00:20:34.838$ It's not a diagnosis,

 $00:20:34.838 \longrightarrow 00:20:36.890$ and in older adults who develop

NOTE Confidence: 0.918069955454546

 $00{:}20{:}36.960 \dashrightarrow 00{:}20{:}39.085$ psychosis for the first time in

NOTE Confidence: 0.918069955454546

 $00:20:39.085 \longrightarrow 00:20:40.975$ their in their later years,

NOTE Confidence: 0.918069955454546

 $00:20:40.980 \longrightarrow 00:20:42.680$ it's generally not late onset

NOTE Confidence: 0.918069955454546

 $00:20:42.680 \longrightarrow 00:20:45.419$ schizophrenia at the age of 70 or even

NOTE Confidence: 0.918069955454546

00:20:45.419 --> 00:20:47.369 late onset mania and bipolar disorder,

NOTE Confidence: 0.918069955454546

00:20:47.370 --> 00:20:50.300 it's usually dementia or it's

NOTE Confidence: 0.918069955454546

 $00:20:50.300 \longrightarrow 00:20:52.644$ delirium superimposed on dementia.

NOTE Confidence: 0.918069955454546

 $00:20:52.650 \longrightarrow 00:20:54.841$ And it may be the first manifestation

NOTE Confidence: 0.918069955454546

 $00:20:54.841 \longrightarrow 00:20:57.000$ of somebody with Alzheimer's disease.

NOTE Confidence: 0.918069955454546 00:20:57.000 --> 00:20:57.416 Not always,

NOTE Confidence: 0.918069955454546

 $00:20:57.416 \longrightarrow 00:20:57.832$ but it.

NOTE Confidence: 0.918069955454546

 $00{:}20{:}57.832 \longrightarrow 00{:}20{:}59.640$ It can be because you know half the

NOTE Confidence: 0.918069955454546

00:20:59.640 --> 00:21:01.182 people in the United States with

NOTE Confidence: 0.918069955454546

00:21:01.182 --> 00:21:02.578 dementia aren't diagnosed and the

NOTE Confidence: 0.918069955454546

 $00{:}21{:}02.578 \dashrightarrow 00{:}21{:}04.234$ ones who are aren't diagnosed until

00:21:04.234 --> 00:21:05.750 they're already in the moderate stages,

NOTE Confidence: 0.918069955454546

 $00:21:05.750 \longrightarrow 00:21:08.678$ which is when you start to see psychosis,

NOTE Confidence: 0.918069955454546

00:21:08.680 --> 00:21:11.140 impaired memory from dementia is

NOTE Confidence: 0.918069955454546

 $00:21:11.140 \longrightarrow 00:21:14.550$ is often what is is the what,

NOTE Confidence: 0.918069955454546

 $00:21:14.550 \longrightarrow 00:21:16.128$ what the psychosis is really about,

NOTE Confidence: 0.918069955454546

 $00:21:16.130 \longrightarrow 00:21:18.517$ which is that they they can't remember

NOTE Confidence: 0.918069955454546

 $00:21:18.517 \longrightarrow 00:21:20.845$ where they are or they misidentify

NOTE Confidence: 0.918069955454546

 $00{:}21{:}20.845 \dashrightarrow 00{:}21{:}22.900$ their spouse because they have.

NOTE Confidence: 0.918069955454546

00:21:22.900 --> 00:21:24.319 This, you know,

NOTE Confidence: 0.918069955454546

 $00{:}21{:}24.319 \dashrightarrow 00{:}21{:}25.265$ Misidentification syndrome

NOTE Confidence: 0.918069955454546

00:21:25.265 --> 00:21:26.684 or Capgras syndrome,

NOTE Confidence: 0.918069955454546

 $00:21:26.690 \longrightarrow 00:21:28.610$ where they think they're like their

NOTE Confidence: 0.918069955454546

 $00{:}21{:}28.610 \dashrightarrow 00{:}21{:}30.579$ caregivers an impostor or their mates,

NOTE Confidence: 0.918069955454546 00:21:30.580 --> 00:21:31.070 unfaithful, NOTE Confidence: 0.918069955454546

 $00:21:31.070 \longrightarrow 00:21:33.520$ which the first patient that

 $00:21:33.520 \longrightarrow 00:21:35.480$ Doctor Alzheimer's saw Augusti.

NOTE Confidence: 0.918069955454546

00:21:35.480 --> 00:21:37.170 She actually believed that her

NOTE Confidence: 0.918069955454546

00:21:37.170 --> 00:21:38.860 made her spouse was unfaithful.

NOTE Confidence: 0.918069955454546

 $00:21:38.860 \longrightarrow 00:21:41.220$ That was one of her presenting symptoms so,

NOTE Confidence: 0.918069955454546

 $00:21:41.220 \longrightarrow 00:21:43.131$ but if you look at these quote

NOTE Confidence: 0.918069955454546

 $00:21:43.131 \longrightarrow 00:21:43.677$ unquote delusions,

NOTE Confidence: 0.921867573478261

 $00:21:43.680 \longrightarrow 00:21:44.580$ fixed false beliefs,

NOTE Confidence: 0.921867573478261

 $00:21:44.580 \longrightarrow 00:21:46.380$ they're often based on the fact

NOTE Confidence: 0.921867573478261

00:21:46.380 --> 00:21:48.315 that the persons having cognitive

NOTE Confidence: 0.921867573478261

00:21:48.315 --> 00:21:50.290 impairment and inability to recognize

NOTE Confidence: 0.921867573478261

 $00{:}21{:}50.290 \dashrightarrow 00{:}21{:}52.214$ familiar people or things and then

NOTE Confidence: 0.921867573478261

 $00:21:52.214 \longrightarrow 00:21:53.799$ stories get created around it.

NOTE Confidence: 0.921867573478261

00:21:53.800 --> 00:21:56.248 So that's really important to keep in mind,

NOTE Confidence: 0.921867573478261

 $00:21:56.250 \longrightarrow 00:21:58.146$ and then finally the duration of

NOTE Confidence: 0.921867573478261

 $00:21:58.146 \longrightarrow 00:21:59.967$ treatment is often informed by the

NOTE Confidence: 0.921867573478261

00:21:59.967 --> 00:22:01.703 actual diagnosis and what I mean by

 $00:22:01.703 \longrightarrow 00:22:03.776$ that is if if this is delusions and

NOTE Confidence: 0.921867573478261

 $00:22:03.776 \longrightarrow 00:22:05.112$ Alisa nations and somebody who's

NOTE Confidence: 0.921867573478261

00:22:05.112 --> 00:22:06.828 manic with a history of bipolar

NOTE Confidence: 0.921867573478261

00:22:06.828 --> 00:22:08.418 disorder who also now later life,

NOTE Confidence: 0.921867573478261

 $00:22:08.420 \longrightarrow 00:22:09.236$ happens that dementia.

NOTE Confidence: 0.921867573478261

00:22:09.236 --> 00:22:11.140 You know they're going to need to

NOTE Confidence: 0.921867573478261

00:22:11.190 --> 00:22:12.940 continue to stay on pharmacotherapy,

NOTE Confidence: 0.921867573478261

 $00:22:12.940 \longrightarrow 00:22:14.206$ but if this is somebody with

NOTE Confidence: 0.921867573478261

 $00:22:14.206 \longrightarrow 00:22:15.387$ Alzheimer's disease and all of a

NOTE Confidence: 0.921867573478261

 $00{:}22{:}15.387 \dashrightarrow 00{:}22{:}16.587$ sudden has a UTI and in the setting

NOTE Confidence: 0.921867573478261

 $00:22:16.632 \longrightarrow 00:22:17.892$ of the UTI they see things that

NOTE Confidence: 0.921867573478261

00:22:17.892 --> 00:22:19.340 aren't there and get agitated, well,

NOTE Confidence: 0.921867573478261

 $00{:}22{:}19.340 \dashrightarrow 00{:}22{:}21.766$ you can give them a land subpoena or

NOTE Confidence: 0.921867573478261

 $00{:}22{:}21.766 \dashrightarrow 00{:}22{:}23.628$ QT and perhaps a risperid one for a

NOTE Confidence: 0.921867573478261

00:22:23.628 --> 00:22:25.920 period of time because they're agitated.

 $00:22:25.920 \longrightarrow 00:22:27.984$ But if you don't treat their

NOTE Confidence: 0.921867573478261

00:22:27.984 --> 00:22:29.016 UTI without antibiotics,

NOTE Confidence: 0.921867573478261

 $00:22:29.020 \longrightarrow 00:22:30.217$ you're not going to get very far.

NOTE Confidence: 0.921867573478261

00:22:30.220 --> 00:22:32.754 So anyway, it it sounds so obvious,

NOTE Confidence: 0.921867573478261

 $00:22:32.760 \longrightarrow 00:22:35.189$ but this is what I mean about

NOTE Confidence: 0.921867573478261

 $00:22:35.189 \longrightarrow 00:22:37.619$ looking for the underlying cause.

NOTE Confidence: 0.921867573478261

 $00{:}22{:}37.620 \dashrightarrow 00{:}22{:}39.552$ So the older drugs the conventional

NOTE Confidence: 0.921867573478261

00:22:39.552 --> 00:22:40.518 antipsychotics like caliper,

NOTE Confidence: 0.921867573478261

 $00:22:40.520 \longrightarrow 00:22:41.980$ it all are still used,

NOTE Confidence: 0.921867573478261

 $00:22:41.980 \longrightarrow 00:22:45.156$ hopefully rarely and there is data on them.

NOTE Confidence: 0.921867573478261

00:22:45.160 --> 00:22:47.456 But the reason why we don't use

NOTE Confidence: 0.921867573478261

 $00:22:47.456 \longrightarrow 00:22:49.608$ them much if at all is because of

NOTE Confidence: 0.921867573478261

 $00:22:49.608 \longrightarrow 00:22:51.364$ the toxic side effects and they

NOTE Confidence: 0.921867573478261

00:22:51.364 --> 00:22:52.768 really include extrapyramidal side

NOTE Confidence: 0.921867573478261

 $00:22:52.768 \longrightarrow 00:22:54.879$ effects like that are listed here.

NOTE Confidence: 0.921867573478261

 $00:22:54.880 \longrightarrow 00:22:58.002$ Risk of falls orthostasis with a low

 $00:22:58.002 \longrightarrow 00:23:00.855$ potency and psychotics and then the

NOTE Confidence: 0.921867573478261

 $00:23:00.855 \longrightarrow 00:23:03.380$ risk of tardive dyskinesia which.

NOTE Confidence: 0.921867573478261

 $00:23:03.380 \longrightarrow 00:23:04.840$ The risk factors for developing

NOTE Confidence: 0.921867573478261

00:23:04.840 --> 00:23:06.590 tardive dyskinesia as you all know,

NOTE Confidence: 0.921867573478261

 $00:23:06.590 \longrightarrow 00:23:07.670$ include advancing age,

NOTE Confidence: 0.921867573478261

 $00:23:07.670 \longrightarrow 00:23:10.190$ and so if you see somebody with

NOTE Confidence: 0.921867573478261

00:23:10.257 --> 00:23:13.335 schizophrenia in their 30s and they're

NOTE Confidence: 0.921867573478261

 $00:23:13.335 \longrightarrow 00:23:15.387$ treated with antipsychotic medication,

NOTE Confidence: 0.921867573478261

 $00:23:15.390 \longrightarrow 00:23:17.052$ the risk of developing TD in

NOTE Confidence: 0.921867573478261

 $00:23:17.052 \longrightarrow 00:23:18.769$ the first year is about 5%,

NOTE Confidence: 0.921867573478261

 $00:23:18.770 \longrightarrow 00:23:20.150$ and so about 5% every year.

NOTE Confidence: 0.921867573478261

 $00:23:20.150 \longrightarrow 00:23:22.245$ So after three years, it's about 15%.

NOTE Confidence: 0.921867573478261

 $00{:}23{:}22.245 \dashrightarrow 00{:}23{:}24.925$ Now if that same person in their 70s,

NOTE Confidence: 0.921867573478261

 $00:23:24.930 \longrightarrow 00:23:27.426$ and you give them haloperidol for a year,

NOTE Confidence: 0.921867573478261

00:23:27.430 --> 00:23:29.870 it's 28\% risk of TD,

 $00:23:29.870 \longrightarrow 00:23:31.382$ and that goes up to nearly

NOTE Confidence: 0.921867573478261

 $00:23:31.382 --> 00:23:32.390\ 2/3$ after three years.

NOTE Confidence: 0.921867573478261

 $00:23:32.390 \longrightarrow 00:23:34.390$ So that's one of the main reasons why.

NOTE Confidence: 0.921867573478261

 $00:23:34.390 \longrightarrow 00:23:35.890$ We really try to avoid these,

NOTE Confidence: 0.921867573478261

 $00:23:35.890 \longrightarrow 00:23:39.770$ especially for long term use in older adults.

NOTE Confidence: 0.921867573478261

 $00:23:39.770 \longrightarrow 00:23:41.602$ So I'm not going to go through the

NOTE Confidence: 0.921867573478261

 $00:23:41.602 \longrightarrow 00:23:42.912$ exhaustive literature on the atypical

NOTE Confidence: 0.921867573478261

00:23:42.912 --> 00:23:43.988 antipsychotic use in dementia,

NOTE Confidence: 0.921867573478261

 $00{:}23{:}43.990 \dashrightarrow 00{:}23{:}45.700$ but I want to highlight that

NOTE Confidence: 0.921867573478261

00:23:45.700 --> 00:23:47.127 these four drugs, risperidone,

NOTE Confidence: 0.921867573478261

 $00:23:47.127 \longrightarrow 00:23:48.828$ olanzapine, Katipunan, aripiprazole.

NOTE Confidence: 0.921867573478261

 $00:23:48.828 \longrightarrow 00:23:51.663$ The reason why there's dosing

NOTE Confidence: 0.921867573478261

00:23:51.663 --> 00:23:54.084 ranges listed on the slide is

NOTE Confidence: 0.921867573478261

 $00:23:54.084 \longrightarrow 00:23:55.864$ because it's based on evidence.

NOTE Confidence: 0.921867573478261

 $00:23:55.870 \longrightarrow 00:23:58.570$ It's not just clinical judgment.

NOTE Confidence: 0.921867573478261

 $00:23:58.570 \longrightarrow 00:24:00.560$ There are a lot of studies that were done and

 $00:24:00.606 \longrightarrow 00:24:02.505$ will go through a few examples in a minute,

NOTE Confidence: 0.921867573478261

00:24:02.510 --> 00:24:04.170 but risperidone .5 to two?

NOTE Confidence: 0.921867573478261

 $00:24:04.170 \longrightarrow 00:24:06.606$ You'll notice these general doses are low.

NOTE Confidence: 0.921867573478261

 $00:24:06.610 \longrightarrow 00:24:07.818$ You'll notice the quote

NOTE Confidence: 0.921867573478261

00:24:07.818 --> 00:24:09.328 typing dose is quite variable,

NOTE Confidence: 0.921867573478261 00:24:09.330 --> 00:24:09.808 which is. NOTE Confidence: 0.921867573478261

 $00:24:09.808 \longrightarrow 00:24:11.242$ One of the challenges with this

NOTE Confidence: 0.921867573478261

 $00:24:11.242 \longrightarrow 00:24:13.003$ drug is how hard it is to figure

NOTE Confidence: 0.921867573478261

 $00:24:13.003 \longrightarrow 00:24:14.509$ out what dose the person needs.

NOTE Confidence: 0.921867573478261

 $00{:}24{:}14.510 \dashrightarrow 00{:}24{:}16.211$ There are a lot of other atypicals

NOTE Confidence: 0.921867573478261

 $00:24:16.211 \longrightarrow 00:24:17.640$ that have come on the market

NOTE Confidence: 0.921867573478261

 $00:24:17.640 \longrightarrow 00:24:19.138$ in the last decade or so with

NOTE Confidence: 0.921867573478261

 $00{:}24{:}19.187 \dashrightarrow 00{:}24{:}20.727$ very little data and clozapine,

NOTE Confidence: 0.919972414

 $00:24:20.730 \longrightarrow 00:24:21.530$ which is a much older.

NOTE Confidence: 0.919972414

 $00:24:21.530 \longrightarrow 00:24:24.450$ Drugs still has very little data in dementia.

00:24:24.450 --> 00:24:26.998 There's a one positive and one negative

NOTE Confidence: 0.919972414

 $00:24:26.998 \longrightarrow 00:24:28.857$ brexpiprazole study with the third

NOTE Confidence: 0.919972414

 $00:24:28.857 \longrightarrow 00:24:30.632$ trial ongoing and pimavanserin which

NOTE Confidence: 0.919972414

 $00:24:30.632 \longrightarrow 00:24:33.560$ was being studied for the psychosis

NOTE Confidence: 0.919972414

 $00:24:33.560 \longrightarrow 00:24:36.130$ of or dementia related psychosis.

NOTE Confidence: 0.919972414

00:24:36.130 --> 00:24:38.785 In April of 2021,

NOTE Confidence: 0.919972414

 $00:24:38.785 \longrightarrow 00:24:40.460$ the FDA rejected their application.

NOTE Confidence: 0.919972414

 $00:24:40.460 \longrightarrow 00:24:43.435$ So there's more work going on there.

NOTE Confidence: 0.919972414

 $00{:}24{:}43.440 \to 00{:}24{:}45.318$ Still to this day no drugs

NOTE Confidence: 0.919972414

 $00:24:45.318 \longrightarrow 00:24:47.160$ have been approved by the FDA.

NOTE Confidence: 0.919972414

 $00:24:47.160 \longrightarrow 00:24:48.520$ For the psychosis of

NOTE Confidence: 0.919972414

00:24:48.520 --> 00:24:49.880 Alzheimer's disease now TD,

NOTE Confidence: 0.919972414

 $00:24:49.880 \longrightarrow 00:24:51.920$ tardive dyskinesia does not go away

NOTE Confidence: 0.919972414

 $00{:}24{:}51.920 \to 00{:}24{:}54.160$ when using an atypical antipsychotic,

NOTE Confidence: 0.919972414

 $00:24:54.160 \longrightarrow 00:24:56.036$ but it is much less than in

NOTE Confidence: 0.919972414

 $00:24:56.036 \longrightarrow 00:24:57.600$ the older adult population.

 $00:24:57.600 \longrightarrow 00:24:59.288$ On haloperidol, for example.

NOTE Confidence: 0.919972414

 $00:24:59.288 \longrightarrow 00:25:03.455$ So it's about 5% or so per year for

NOTE Confidence: 0.919972414

 $00:25:03.455 \longrightarrow 00:25:05.392$ risperidone and olanzapine compared

NOTE Confidence: 0.919972414

 $00:25:05.392 \longrightarrow 00:25:08.104$ to 28% with the conventional agents.

NOTE Confidence: 0.91525376

 $00:25:10.290 \longrightarrow 00:25:11.730$ I want to show you two

NOTE Confidence: 0.91525376

00:25:11.730 --> 00:25:12.690 studies only two studies,

NOTE Confidence: 0.91525376

 $00:25:12.690 \longrightarrow 00:25:14.988$ 'cause this is a huge literature,

NOTE Confidence: 0.91525376

 $00{:}25{:}14.990 \dashrightarrow 00{:}25{:}17.330$ but they highlight the way in

NOTE Confidence: 0.91525376

 $00:25:17.330 \longrightarrow 00:25:20.060$ which this data was collected and

NOTE Confidence: 0.91525376

 $00:25:20.060 \longrightarrow 00:25:22.785$ it's really important to remember.

NOTE Confidence: 0.91525376

 $00:25:22.790 \longrightarrow 00:25:24.011$ Generalizability of data.

NOTE Confidence: 0.91525376

 $00:25:24.011 \longrightarrow 00:25:26.453$ So the first series of studies

NOTE Confidence: 0.91525376

 $00{:}25{:}26.453 \dashrightarrow 00{:}25{:}28.322$ that were done essentially in

NOTE Confidence: 0.91525376

 $00{:}25{:}28.322 \dashrightarrow 00{:}25{:}30.404$ the 90s in the early 2000s.

NOTE Confidence: 0.91525376

 $00:25:30.410 \longrightarrow 00:25:32.524$ We're done in patients who were in

00:25:32.524 --> 00:25:34.517 nursing homes who had more advanced

NOTE Confidence: 0.91525376

 $00{:}25{:}34.517 \dashrightarrow 00{:}25{:}36.569$ dementia with mini mental status exams

NOTE Confidence: 0.91525376

 $00:25:36.569 \longrightarrow 00:25:38.778$ in the single digits or low teens.

NOTE Confidence: 0.91525376

 $00:25:38.780 \longrightarrow 00:25:41.650$ Many of them had substantial

NOTE Confidence: 0.91525376

00:25:41.650 --> 00:25:43.508 medical comorbidity and some

NOTE Confidence: 0.91525376

 $00:25:43.508 \longrightarrow 00:25:45.278$ of them had mixed dementias,

NOTE Confidence: 0.91525376

00:25:45.280 --> 00:25:46.572 not just Alzheimer's disease,

NOTE Confidence: 0.91525376

 $00:25:46.572 \longrightarrow 00:25:48.187$ that they already had strokes

NOTE Confidence: 0.91525376

 $00:25:48.187 \longrightarrow 00:25:49.690$ and had vascular dementia.

NOTE Confidence: 0.91525376

00:25:49.690 --> 00:25:51.384 I mentioned that because of some of

NOTE Confidence: 0.91525376

 $00:25:51.384 \longrightarrow 00:25:52.927$ the problems with with mortality and

NOTE Confidence: 0.91525376

00:25:52.927 --> 00:25:54.719 stroke that I'll mention in a minute,

NOTE Confidence: 0.91525376

 $00:25:54.720 \longrightarrow 00:25:56.478$ so this was the risperidone trial.

NOTE Confidence: 0.91525376

 $00:25:56.480 \longrightarrow 00:25:59.196$ This was the first one published now.

NOTE Confidence: 0.91525376

00:25:59.200 --> 00:26:01.414 Crazy, it was back in 1999 already,

NOTE Confidence: 0.91525376

 $00:26:01.414 \longrightarrow 00:26:03.773$ but there were four different treatment arms,

 $00{:}26{:}03.780 \dashrightarrow 00{:}26{:}06.348$ place bo .51 and two and one of the

NOTE Confidence: 0.91525376

 $00{:}26{:}06.348 \dashrightarrow 00{:}26{:}08.490$ primary outcome measures that we looked

NOTE Confidence: 0.91525376

 $00:26:08.490 \longrightarrow 00:26:11.215$ at was the psychosis subscale of this

NOTE Confidence: 0.91525376

 $00:26:11.215 \longrightarrow 00:26:13.725$ behavioral measure in Alzheimer's disease.

NOTE Confidence: 0.91525376

 $00:26:13.730 \longrightarrow 00:26:16.096$ And what they found Ihracat still have

NOTE Confidence: 0.91525376

00:26:16.096 --> 00:26:18.528 Jesse and Jacobo Mintzer in this study.

NOTE Confidence: 0.91525376

 $00:26:18.530 \longrightarrow 00:26:20.960$ Was that once you got to a milligram a

NOTE Confidence: 0.91525376

 $00{:}26{:}20.960 \to 00{:}26{:}23.605$ day you saw an improvement in psychosis,

NOTE Confidence: 0.91525376

 $00:26:23.610 \longrightarrow 00:26:25.720$ although the effect was modest.

NOTE Confidence: 0.91525376

00:26:25.720 --> 00:26:27.280 But once you went from one to two,

NOTE Confidence: 0.91525376

00:26:27.280 --> 00:26:29.505 you got no added benefit

NOTE Confidence: 0.91525376

 $00:26:29.505 \longrightarrow 00:26:30.840$ on reducing psychosis.

NOTE Confidence: 0.91525376

 $00{:}26{:}30.840 \dashrightarrow 00{:}26{:}33.003$ Instead, what you got was doubling the

NOTE Confidence: 0.91525376

 $00:26:33.003 \longrightarrow 00:26:34.639$ rate of extrapyramidal side effects,

NOTE Confidence: 0.91525376

 $00:26:34.640 \longrightarrow 00:26:36.026$ and So what you see very clearly

 $00:26:36.026 \longrightarrow 00:26:36.620$ from this study,

NOTE Confidence: 0.91525376

 $00:26:36.620 \longrightarrow 00:26:38.726$ which was one of the five

NOTE Confidence: 0.91525376

 $00:26:38.726 \longrightarrow 00:26:39.779$ risperidone studies done.

NOTE Confidence: 0.91525376

00:26:39.780 --> 00:26:41.133 Again, advanced population,

NOTE Confidence: 0.91525376

 $00:26:41.133 \longrightarrow 00:26:42.937$ long term care settings,

NOTE Confidence: 0.91525376

00:26:42.940 --> 00:26:43.572 medical comorbidity.

NOTE Confidence: 0.91525376

 $00:26:43.572 \longrightarrow 00:26:46.100$ So if you saw somebody who's younger who's

NOTE Confidence: 0.91525376

00:26:46.152 --> 00:26:48.258 an outpatient who had a mini mental of 25,

NOTE Confidence: 0.91525376

 $00{:}26{:}48.260 \dashrightarrow 00{:}26{:}49.316$ which you still see the same

NOTE Confidence: 0.91525376

 $00:26:49.316 \longrightarrow 00:26:50.020$ problems you know we,

NOTE Confidence: 0.91525376

 $00:26:50.020 \longrightarrow 00:26:51.546$ we don't have that data as much.

NOTE Confidence: 0.8899611595

 $00:26:53.560 \longrightarrow 00:26:54.981$ But in the in these studies you

NOTE Confidence: 0.8899611595

 $00{:}26{:}54.981 \dashrightarrow 00{:}26{:}56.618$ see a lot of extra mental side

NOTE Confidence: 0.8899611595

 $00:26:56.618 \longrightarrow 00:26:58.076$ effects once you go above 1,

NOTE Confidence: 0.8899611595

 $00:26:58.080 \longrightarrow 00:26:59.879$ where between one and two this happens.

NOTE Confidence: 0.8899611595

 $00:26:59.880 \longrightarrow 00:27:02.085$ I'm not sure you have to treat

 $00:27:02.085 \longrightarrow 00:27:03.220$ the individual, of course,

NOTE Confidence: 0.8899611595

 $00:27:03.220 \longrightarrow 00:27:04.970$ but you're going to see rigidity and

NOTE Confidence: 0.8899611595

 $00:27:04.970 \longrightarrow 00:27:06.838$ tremor and gait disturbance and so forth.

NOTE Confidence: 0.8899611595

 $00:27:06.840 \longrightarrow 00:27:08.450$ Once you get above 1,

NOTE Confidence: 0.8899611595

 $00:27:08.450 \longrightarrow 00:27:10.538$ certainly to 2 milligrams with risperidone.

NOTE Confidence: 0.8899611595

 $00:27:10.540 \longrightarrow 00:27:11.914$ So there's a little bit of

NOTE Confidence: 0.8899611595

 $00:27:11.914 \longrightarrow 00:27:12.830$ a therapeutic window there.

NOTE Confidence: 0.90107271047619

00:27:15.680 --> 00:27:17.822 Now I want to contrast that kind of study

NOTE Confidence: 0.90107271047619

 $00:27:17.822 \longrightarrow 00:27:19.783$ funded by the Pharmaceutical industry in

NOTE Confidence: 0.90107271047619

 $00:27:19.783 \longrightarrow 00:27:21.800$ the advanced patients and nursing homes.

NOTE Confidence: 0.90107271047619

 $00{:}27{:}21.800 \dashrightarrow 00{:}27{:}23.942$ With the Katie study, most people who

NOTE Confidence: 0.90107271047619

 $00{:}27{:}23.942 \dashrightarrow 00{:}27{:}26.125$ are not geriatric psychiatrist know about

NOTE Confidence: 0.90107271047619

 $00{:}27{:}26.125 \dashrightarrow 00{:}27{:}28.537$ the Katie study because of schizophrenia.

NOTE Confidence: 0.90107271047619

 $00:27:28.540 \longrightarrow 00:27:31.402$ But there happened to be a sister study done

NOTE Confidence: 0.90107271047619

 $00:27:31.402 \longrightarrow 00:27:34.390$ at the same time called Katie Adie and that

 $00:27:34.390 \longrightarrow 00:27:37.408$ was the Alzheimer's sister study of Katie.

NOTE Confidence: 0.90107271047619

 $00{:}27{:}37.410 \dashrightarrow 00{:}27{:}38.898$ And we were involved when I was up

NOTE Confidence: 0.90107271047619

 $00:27:38.898 \longrightarrow 00:27:40.146$ at Dartmouth back in the late 90s.

NOTE Confidence: 0.90107271047619

 $00:27:40.150 \longrightarrow 00:27:41.905$ In this trial we were one of the sites

NOTE Confidence: 0.90107271047619

 $00:27:41.905 \longrightarrow 00:27:43.775$ and it was 42 sites around the country.

NOTE Confidence: 0.90107271047619

00:27:43.780 --> 00:27:46.876 It was 421 patients but they were out

NOTE Confidence: 0.90107271047619

 $00:27:46.876 \longrightarrow 00:27:48.362$ patients including assisted living residents

NOTE Confidence: 0.90107271047619

00:27:48.362 --> 00:27:50.830 and they had a deal with either psychosis,

NOTE Confidence: 0.90107271047619

00:27:50.830 --> 00:27:51.814 aggression or agitation.

NOTE Confidence: 0.90107271047619

00:27:51.814 --> 00:27:54.427 Oh, and one thing I didn't mention was

NOTE Confidence: 0.90107271047619

 $00:27:54.427 \longrightarrow 00:27:56.254$ those first studies were only about 6

NOTE Confidence: 0.90107271047619

 $00:27:56.254 \longrightarrow 00:27:58.546$ to 12 weeks interation. These study.

NOTE Confidence: 0.90107271047619

 $00:27:58.546 \longrightarrow 00:28:02.230$ This study was 36 weeks in duration 9 months.

NOTE Confidence: 0.90107271047619

00:28:02.230 --> 00:28:03.832 And the individuals in this study

NOTE Confidence: 0.90107271047619

 $00:28:03.832 \longrightarrow 00:28:05.568$ were randomized to one of four arms,

NOTE Confidence: 0.90107271047619

 $00:28:05.570 \longrightarrow 00:28:08.314$ olanzapine, quetiapine, and risperidone,

 $00:28:08.314 \longrightarrow 00:28:10.590$ or placebo and the doses.

NOTE Confidence: 0.90107271047619

 $00{:}28{:}10.590 \dashrightarrow 00{:}28{:}13.090$ The mean dose was based on the dose

NOTE Confidence: 0.90107271047619

 $00:28:13.090 \longrightarrow 00:28:15.421$ at the time that the person was

NOTE Confidence: 0.90107271047619

00:28:15.421 --> 00:28:17.687 switched from phase one to phase two.

NOTE Confidence: 0.90107271047619

00:28:17.690 --> 00:28:19.825 The way the study was designed is

NOTE Confidence: 0.90107271047619

 $00:28:19.825 \longrightarrow 00:28:21.859$ people were randomized to one of these

NOTE Confidence: 0.90107271047619

00:28:21.859 --> 00:28:23.455 four treatment arms and they were

NOTE Confidence: 0.90107271047619

 $00:28:23.518 \longrightarrow 00:28:25.576$ out patients if they had persistent

NOTE Confidence: 0.90107271047619

 $00{:}28{:}25.576 \longrightarrow 00{:}28{:}27.290$ psychosis and a gitation the the

NOTE Confidence: 0.90107271047619

 $00{:}28{:}27.290 \dashrightarrow 00{:}28{:}28.650$ investigators doing the study.

NOTE Confidence: 0.90107271047619

 $00:28:28.650 \longrightarrow 00:28:29.458$ The clinicians,

NOTE Confidence: 0.90107271047619

 $00{:}28{:}29.458 \dashrightarrow 00{:}28{:}32.518$ like I was were really pretty quick.

NOTE Confidence: 0.90107271047619

 $00{:}28{:}32.518 \dashrightarrow 00{:}28{:}35.290$ To switch because we knew that

NOTE Confidence: 0.90107271047619

 $00{:}28{:}35.382 \dashrightarrow 00{:}28{:}36.750$ 25% chance they were on placebo

NOTE Confidence: 0.90107271047619

 $00:28:36.750 \longrightarrow 00:28:37.646$ and they were outpatients,

 $00:28:37.650 \longrightarrow 00:28:38.746$ they were safety concerns,

NOTE Confidence: 0.90107271047619

 $00:28:38.746 \longrightarrow 00:28:40.390$ so the doses they got too.

NOTE Confidence: 0.90107271047619

 $00:28:40.390 \longrightarrow 00:28:42.590$ As you can see from the previous slide,

NOTE Confidence: 0.90107271047619

00:28:42.590 --> 00:28:45.110 a mean of five of alanza pain is therapeutic,

NOTE Confidence: 0.90107271047619

 $00:28:45.110 \longrightarrow 00:28:47.336$ at least in those earlier studies with

NOTE Confidence: 0.90107271047619

00:28:47.336 --> 00:28:49.230 risperidone being a milligram a day.

NOTE Confidence: 0.90107271047619

00:28:49.230 --> 00:28:52.073 Also the rapeutic in QT app in the

NOTE Confidence: 0.90107271047619

 $00:28:52.073 \longrightarrow 00:28:53.988$ one quetiapine study that showed

NOTE Confidence: 0.90107271047619

 $00:28:53.988 \longrightarrow 00:28:56.106$ efficacy was 200 milligrams a day

NOTE Confidence: 0.90107271047619

 $00:28:56.106 \longrightarrow 00:28:57.947$ and and this may have been under

NOTE Confidence: 0.90107271047619

 $00{:}28{:}57.947 \dashrightarrow 00{:}28{:}59.770$ dosed and then there's place bo.

NOTE Confidence: 0.90107271047619

 $00:28:59.770 \longrightarrow 00:29:01.588$ So at the end of the day the outcome

NOTE Confidence: 0.90107271047619

 $00:29:01.588 \longrightarrow 00:29:03.280$ that they looked at in this study.

NOTE Confidence: 0.90107271047619

 $00{:}29{:}03.280 \dashrightarrow 00{:}29{:}04.940$ It was not symptom reduction.

NOTE Confidence: 0.90107271047619

00:29:04.940 --> 00:29:06.698 It was not reduction of psychosis

NOTE Confidence: 0.90107271047619

 $00{:}29{:}06.698 \dashrightarrow 00{:}29{:}08.659$ or aggression on a rating scale.

 $00:29:08.660 \longrightarrow 00:29:10.466$ The outcome they looked at was how

NOTE Confidence: 0.90107271047619

 $00{:}29{:}10.466 \dashrightarrow 00{:}29{:}12.504$ long did it take for the investigator

NOTE Confidence: 0.90107271047619

 $00:29:12.504 \longrightarrow 00:29:14.673$ to make a decision to switch from

NOTE Confidence: 0.90107271047619

00:29:14.673 --> 00:29:16.374 drug drug atede rugby and that

NOTE Confidence: 0.90107271047619

 $00:29:16.374 \longrightarrow 00:29:17.976$ decision is of course a balance

NOTE Confidence: 0.90107271047619

 $00:29:17.976 \longrightarrow 00:29:20.347$ of is the drug working or is the

NOTE Confidence: 0.90107271047619

00:29:20.347 --> 00:29:21.999 drug not being tolerated or not?

NOTE Confidence: 0.90107271047619

 $00:29:22.000 \longrightarrow 00:29:23.884$ So after the after looking at

NOTE Confidence: 0.90107271047619

 $00:29:23.884 \longrightarrow 00:29:25.720$ this as the primary outcome,

NOTE Confidence: 0.90107271047619

 $00:29:25.720 \longrightarrow 00:29:27.032$ this this effectiveness measure,

NOTE Confidence: 0.90107271047619

 $00:29:27.032 \longrightarrow 00:29:29.477$ there was really no difference in any of

NOTE Confidence: 0.90107271047619

00:29:29.477 --> 00:29:31.550 the four groups in terms of time to switch,

NOTE Confidence: 0.90107271047619

 $00{:}29{:}31.550 \dashrightarrow 00{:}29{:}33.797$ and the reason for that was although

NOTE Confidence: 0.90107271047619

 $00{:}29{:}33.797 \dashrightarrow 00{:}29{:}36.204$ there may have been some efficacy

NOTE Confidence: 0.90107271047619

 $00{:}29{:}36.204 \dashrightarrow 00{:}29{:}38.040$ advantages and symptom reduction

 $00:29:38.040 \longrightarrow 00:29:40.308$ tolerability for placebo is way better

NOTE Confidence: 0.90107271047619

 $00{:}29{:}40.308 \dashrightarrow 00{:}29{:}43.673$ and and so if you looked at only

NOTE Confidence: 0.90107271047619

00:29:43.673 --> 00:29:45.893 efficacy which is symptom reduction,

NOTE Confidence: 0.90107271047619

00:29:45.900 --> 00:29:47.058 psychosis or agitation,

NOTE Confidence: 0.90107271047619

 $00:29:47.058 \longrightarrow 00:29:49.374$ you stayed on risperidone and olanzapine

NOTE Confidence: 0.90107271047619

00:29:49.374 --> 00:29:51.179 longer than you did quit typing,

NOTE Confidence: 0.90107271047619

 $00:29:51.180 \longrightarrow 00:29:53.987$ which may have been underdosed or placebo.

NOTE Confidence: 0.90107271047619

 $00:29:53.990 \longrightarrow 00:29:55.958$ So the secondary outcomes were positive,

NOTE Confidence: 0.957961794285714

 $00:29:55.960 \longrightarrow 00:29:57.619$ but but not the primary outcome here.

NOTE Confidence: 0.957961794285714

 $00:29:57.620 \longrightarrow 00:29:58.500$ So when this came out,

NOTE Confidence: 0.957961794285714

 $00:29:58.500 \longrightarrow 00:30:00.678$ by the way which is now 16 years ago,

NOTE Confidence: 0.957961794285714

 $00:30:00.680 \longrightarrow 00:30:03.132$ it's made front page news and the

NOTE Confidence: 0.957961794285714

 $00:30:03.132 \longrightarrow 00:30:04.924$ question was do these drugs even work?

NOTE Confidence: 0.957961794285714

 $00:30:04.930 \longrightarrow 00:30:06.365$ But again, I think it's is this.

NOTE Confidence: 0.957961794285714

 $00:30:06.370 \longrightarrow 00:30:10.660$ It's an efficacy effectiveness difference.

NOTE Confidence: 0.957961794285714

 $00:30:10.660 \longrightarrow 00:30:11.750$ And as I mentioned before,

 $00:30:11.750 \longrightarrow 00:30:13.682$ the tolerability was the issue is

NOTE Confidence: 0.957961794285714

 $00:30:13.682 \longrightarrow 00:30:16.214$ that you know placebo was less often

NOTE Confidence: 0.957961794285714

 $00:30:16.214 \longrightarrow 00:30:18.189$ discontinued because of adverse events.

NOTE Confidence: 0.957961794285714

00:30:18.190 --> 00:30:19.919 What's interesting here is that and again,

NOTE Confidence: 0.957961794285714

00:30:19.920 --> 00:30:21.860 remember, it's only 421 patients,

NOTE Confidence: 0.957961794285714

00:30:21.860 --> 00:30:23.420 but there was no stroke difference.

NOTE Confidence: 0.957961794285714

 $00:30:23.420 \longrightarrow 00:30:25.120$ There was no death difference.

NOTE Confidence: 0.957961794285714

 $00:30:25.120 \longrightarrow 00:30:28.095$ There was no fall difference between these,

NOTE Confidence: 0.957961794285714

 $00{:}30{:}28.100 \dashrightarrow 00{:}30{:}31.705$ you know drugs or or or placebo.

NOTE Confidence: 0.957961794285714

 $00:30:31.710 \longrightarrow 00:30:34.790$ Now Dev Dev Anand is a Colombian colleagues,

NOTE Confidence: 0.957961794285714

00:30:34.790 --> 00:30:36.386 tried to answer really important question

NOTE Confidence: 0.957961794285714

 $00:30:36.386 \longrightarrow 00:30:38.598$ a few years ago in this study which is

NOTE Confidence: 0.957961794285714

 $00{:}30{:}38.598 \dashrightarrow 00{:}30{:}40.450$ like if you put somebody on risperidone,

NOTE Confidence: 0.957961794285714

00:30:40.450 --> 00:30:42.754 let's say and they've got psychosis

NOTE Confidence: 0.957961794285714

 $00:30:42.754 \longrightarrow 00:30:44.290$ and agitation in dementia.

00:30:44.290 --> 00:30:45.802 How long do you keep him on the drug?

NOTE Confidence: 0.957961794285714 00:30:45.810 --> 00:30:46.394 You know, NOTE Confidence: 0.957961794285714

 $00:30:46.394 \longrightarrow 00:30:48.438$ when can you safely stop the drug

NOTE Confidence: 0.957961794285714

 $00:30:48.438 \longrightarrow 00:30:50.788$ and so the the way this study was

NOTE Confidence: 0.957961794285714

 $00:30:50.788 \longrightarrow 00:30:52.830$ designed is they they gave patients

NOTE Confidence: 0.957961794285714

 $00:30:52.830 \longrightarrow 00:30:55.062$ 16 weeks of open label risperidone.

NOTE Confidence: 0.957961794285714

 $00:30:55.070 \longrightarrow 00:30:57.548$ And 180 were then randomized to staying

NOTE Confidence: 0.957961794285714

 $00:30:57.548 \longrightarrow 00:30:59.734$ on risperidone or or converting to

NOTE Confidence: 0.957961794285714

 $00{:}30{:}59.734 \dashrightarrow 00{:}31{:}02.212$ place bo tapered off and going on place bo

NOTE Confidence: 0.957961794285714

 $00:31:02.275 \longrightarrow 00:31:04.755$ and what they found is that the relapse

NOTE Confidence: 0.957961794285714

 $00{:}31{:}04.755 \dashrightarrow 00{:}31{:}06.840$ rates after four months of being on

NOTE Confidence: 0.957961794285714

 $00:31:06.840 \longrightarrow 00:31:08.450$ risperidone and now being stable.

NOTE Confidence: 0.957961794285714

 $00:31:08.450 \longrightarrow 00:31:10.396$ If you then take people off the

NOTE Confidence: 0.957961794285714

00:31:10.396 --> 00:31:12.367 relapse rates are twice as high and

NOTE Confidence: 0.957961794285714

00:31:12.367 --> 00:31:14.118 the next four months on placebo

NOTE Confidence: 0.957961794285714

 $00{:}31{:}14.118 \dashrightarrow 00{:}31{:}16.122$ and then even higher three times

 $00:31:16.122 \longrightarrow 00:31:18.568$ as high over the next four months.

NOTE Confidence: 0.957961794285714

 $00{:}31{:}18.570 \dashrightarrow 00{:}31{:}20.370$ So although all recommendations

NOTE Confidence: 0.957961794285714

 $00:31:20.370 \longrightarrow 00:31:23.070$ including the API guidelines I'm going

NOTE Confidence: 0.957961794285714

 $00:31:23.141 \longrightarrow 00:31:25.325$ to show you in a minute say after.

NOTE Confidence: 0.957961794285714

 $00:31:25.330 \longrightarrow 00:31:27.780$ A period of time attempt to taper

NOTE Confidence: 0.957961794285714

 $00:31:27.780 \longrightarrow 00:31:29.630$ and discontinue the medication.

NOTE Confidence: 0.957961794285714

 $00:31:29.630 \longrightarrow 00:31:30.572$ This was in the New England

NOTE Confidence: 0.957961794285714

 $00:31:30.572 \longrightarrow 00:31:31.043$ Journal of Medicine.

NOTE Confidence: 0.957961794285714

 $00:31:31.050 \longrightarrow 00:31:32.208$ It was a well designed study.

NOTE Confidence: 0.957961794285714

 $00:31:32.210 \longrightarrow 00:31:34.268$ It's it's easier said than done,

NOTE Confidence: 0.957961794285714

 $00:31:34.270 \longrightarrow 00:31:37.190$ so this is a challenge that we have.

NOTE Confidence: 0.957961794285714

00:31:37.190 --> 00:31:39.174 So I want to highlight some of the

NOTE Confidence: 0.957961794285714

 $00{:}31{:}39.174 \dashrightarrow 00{:}31{:}40.620$ warnings so when risperid one was

NOTE Confidence: 0.957961794285714

00:31:40.620 --> 00:31:43.030 trying to convince the FDA back in the

NOTE Confidence: 0.957961794285714

 $00:31:43.030 \longrightarrow 00:31:44.955$ early 2000s that their drug may may

 $00:31:44.955 \longrightarrow 00:31:46.452$ have safety and efficacy advantages

NOTE Confidence: 0.957961794285714

 $00:31:46.452 \longrightarrow 00:31:48.336$ in this population and they went

NOTE Confidence: 0.957961794285714

 $00:31:48.336 \longrightarrow 00:31:50.112$ to the FDA for approval review.

NOTE Confidence: 0.957961794285714

00:31:50.112 --> 00:31:52.578 That's when they first noticed that

NOTE Confidence: 0.957961794285714

 $00:31:52.578 \longrightarrow 00:31:54.946$ there might be a stroke risk issue.

NOTE Confidence: 0.957961794285714

 $00:31:54.950 \longrightarrow 00:31:56.490$ There was one study that showed a

NOTE Confidence: 0.957961794285714

 $00{:}31{:}56.490 \dashrightarrow 00{:}31{:}58.041$ higher risk of stroke like events

NOTE Confidence: 0.957961794285714

 $00:31:58.041 \longrightarrow 00:31:59.165$ and drug versus placebo.

NOTE Confidence: 0.957961794285714

 $00{:}31{:}59.170 --> 00{:}32{:}00.892$ It led to an investigation of

NOTE Confidence: 0.957961794285714

 $00:32:00.892 \longrightarrow 00:32:02.809$ mortality in the in the warning.

NOTE Confidence: 0.957961794285714

 $00:32:02.810 \dashrightarrow 00:32:04.830$ So if you just look at the stroke risk OK,

NOTE Confidence: 0.957961794285714

00:32:04.830 --> 00:32:06.630 these could be large hemorrhagic,

NOTE Confidence: 0.957961794285714

 $00:32:06.630 \longrightarrow 00:32:07.863$ or embolic strokes.

NOTE Confidence: 0.957961794285714

 $00:32:07.863 \longrightarrow 00:32:10.329$ It could be microvascular ischemic disease

NOTE Confidence: 0.957961794285714

 $00:32:10.329 \longrightarrow 00:32:13.018$ that that caused symptoms like dizziness,

NOTE Confidence: 0.957961794285714

 $00:32:13.020 \longrightarrow 00:32:15.099$ Tia like symptoms.

 $00:32:15.100 \longrightarrow 00:32:17.515$ The the risk of these stroke like

NOTE Confidence: 0.957961794285714

 $00:32:17.515 \dashrightarrow 00:32:20.170$ events in drug versus placebo was two

NOTE Confidence: 0.957961794285714

00:32:20.170 --> 00:32:23.216 to three fold higher for risperidone,

NOTE Confidence: 0.957961794285714

00:32:23.216 --> 00:32:25.460 olanzapine and aripiprazole.

NOTE Confidence: 0.957961794285714

00:32:25.460 --> 00:32:28.358 Interestingly, not for quetiapine in fact,

NOTE Confidence: 0.957961794285714

 $00:32:28.360 \longrightarrow 00:32:30.748$ you might even argue that placebo

NOTE Confidence: 0.957961794285714

 $00:32:30.748 \longrightarrow 00:32:32.795$ was worse than than putting in

NOTE Confidence: 0.957961794285714

00:32:32.795 --> 00:32:34.440 terms of these risk factors,

NOTE Confidence: 0.957961794285714

 $00:32:34.440 \longrightarrow 00:32:36.071$ but the end was much smaller with

NOTE Confidence: 0.957961794285714

 $00:32:36.071 \longrightarrow 00:32:37.577$ with quote type you know overall

NOTE Confidence: 0.957961794285714

 $00:32:37.577 \longrightarrow 00:32:39.560$ than the others and this is not

NOTE Confidence: 0.957961794285714

 $00:32:39.560 \longrightarrow 00:32:41.390$ a black box warning from the

NOTE Confidence: 0.905848704545455

 $00:32:41.462 \longrightarrow 00:32:43.560$ FDA. This is a warning that's been placed

NOTE Confidence: 0.905848704545455

 $00:32:43.560 \longrightarrow 00:32:46.070$ on some of these atypical antipsychotics.

NOTE Confidence: 0.905848704545455

 $00:32:46.070 \longrightarrow 00:32:49.138$ But not all. This is the problem.

 $00:32:49.138 \longrightarrow 00:32:50.066$ Is this box warning.

NOTE Confidence: 0.905848704545455

 $00:32:50.070 \dashrightarrow 00:32:51.894$ This is where the controversy comes

NOTE Confidence: 0.905848704545455

 $00:32:51.894 \longrightarrow 00:32:53.814$ from and it's really important to

NOTE Confidence: 0.905848704545455

 $00:32:53.814 \longrightarrow 00:32:55.764$ understand where the data was from.

NOTE Confidence: 0.905848704545455

 $00:32:55.770 \longrightarrow 00:32:58.834$ This was 17 trials that the FDA reviewed

NOTE Confidence: 0.905848704545455

00:32:58.834 --> 00:33:02.458 now 17 years ago with over 5000 patients,

NOTE Confidence: 0.905848704545455

00:33:02.460 --> 00:33:04.749 2/3 on drug, a third on placebo,

NOTE Confidence: 0.905848704545455

 $00:33:04.750 \longrightarrow 00:33:06.604$ and these were patients who were

NOTE Confidence: 0.905848704545455

 $00{:}33{:}06.604 \dashrightarrow 00{:}33{:}08.270$ studied in those original trials.

NOTE Confidence: 0.905848704545455

 $00:33:08.270 \longrightarrow 00:33:09.908$ Like I showed you with risperidone

NOTE Confidence: 0.905848704545455

 $00{:}33{:}09.908 \dashrightarrow 00{:}33{:}11.375$ where these were end stage

NOTE Confidence: 0.905848704545455

 $00:33:11.375 \longrightarrow 00:33:12.647$ patients in nursing homes.

NOTE Confidence: 0.905848704545455

 $00:33:12.650 \longrightarrow 00:33:14.150$ Lominy mental scores,

NOTE Confidence: 0.905848704545455

 $00:33:14.150 \longrightarrow 00:33:17.186$ lots of medical comorbidity and the risk of

NOTE Confidence: 0.905848704545455

00:33:17.186 --> 00:33:19.819 death was four and a half percent on drug,

NOTE Confidence: 0.905848704545455

 $00:33:19.820 \longrightarrow 00:33:20.816$ 2.6% on placebo.

 $00:33:20.816 \longrightarrow 00:33:22.476$ So there's a higher statistically

NOTE Confidence: 0.905848704545455

 $00:33:22.476 \longrightarrow 00:33:23.412$ significant death. Great.

NOTE Confidence: 0.905848704545455

00:33:23.412 --> 00:33:25.044 And one of the big questions

NOTE Confidence: 0.905848704545455

 $00:33:25.044 \longrightarrow 00:33:26.338$ that people ask is, well,

NOTE Confidence: 0.905848704545455

 $00:33:26.338 \longrightarrow 00:33:27.886$ why were people dying on these

NOTE Confidence: 0.905848704545455

00:33:27.886 --> 00:33:29.279 drugs and and one of the,

NOTE Confidence: 0.905848704545455 00:33:29.280 --> 00:33:29.686 you know,

NOTE Confidence: 0.905848704545455

 $00{:}33{:}29.686 \dashrightarrow 00{:}33{:}30.904$ we don't know for sure 'cause

NOTE Confidence: 0.905848704545455

00:33:30.904 --> 00:33:31.939 no autopsies were performed,

NOTE Confidence: 0.905848704545455

 $00:33:31.940 \longrightarrow 00:33:34.210$ but when you look at the cause of

NOTE Confidence: 0.905848704545455

 $00:33:34.210 \longrightarrow 00:33:36.010$ death that were documented by the

NOTE Confidence: 0.905848704545455

 $00:33:36.010 \longrightarrow 00:33:37.179$ clinicians overseeing the trials,

NOTE Confidence: 0.905848704545455

 $00:33:37.180 \longrightarrow 00:33:38.896$ it was either cardiac or infectious.

NOTE Confidence: 0.905848704545455

 $00:33:38.900 \longrightarrow 00:33:40.629$ And so one theory is that these

NOTE Confidence: 0.905848704545455

 $00:33:40.629 \longrightarrow 00:33:42.594$ drugs we know can prolong the QTC

 $00:33:42.594 \longrightarrow 00:33:44.340$ interval and it can cause cardiac

NOTE Confidence: 0.905848704545455

 $00{:}33{:}44.400 \dashrightarrow 00{:}33{:}46.380$ arrhythmia and sudden cardiac death.

NOTE Confidence: 0.905848704545455

 $00:33:46.380 \longrightarrow 00:33:48.240$ So that could be 1 mechanism

NOTE Confidence: 0.905848704545455

 $00:33:48.240 \longrightarrow 00:33:50.620$ the other could be sedation,

NOTE Confidence: 0.905848704545455

00:33:50.620 --> 00:33:52.140 leading to aspiration, pneumonia,

NOTE Confidence: 0.905848704545455

 $00:33:52.140 \longrightarrow 00:33:54.420$ infection and then subsequent deaths.

NOTE Confidence: 0.905848704545455

 $00:33:54.420 \longrightarrow 00:33:55.638$ So we don't know for sure.

NOTE Confidence: 0.905848704545455

 $00:33:55.640 \longrightarrow 00:33:57.980$ Those are two potential mechanisms.

NOTE Confidence: 0.905848704545455

 $00{:}33{:}57.980 --> 00{:}33{:}58.334 \ {\rm Interestingly},$

NOTE Confidence: 0.905848704545455

 $00:33:58.334 \longrightarrow 00:34:01.166$ when the warning first came out in 05,

NOTE Confidence: 0.905848704545455

 $00:34:01.170 \longrightarrow 00:34:03.156$ it was just for the Atypicals,

NOTE Confidence: 0.905848704545455

 $00:34:03.160 \longrightarrow 00:34:05.296$ even though there were studies involving

NOTE Confidence: 0.905848704545455

00:34:05.296 --> 00:34:06.720 Haldol and conventional agents,

NOTE Confidence: 0.905848704545455

00:34:06.720 --> 00:34:08.420 but they weren't comparable studies,

NOTE Confidence: 0.905848704545455

 $00:34:08.420 \longrightarrow 00:34:09.875$ but they weren't these randomized

NOTE Confidence: 0.905848704545455

 $00:34:09.875 \longrightarrow 00:34:10.748$ well designed trials,

 $00:34:10.750 \longrightarrow 00:34:12.184$ and so eventually,

NOTE Confidence: 0.905848704545455 00:34:12.184 --> 00:34:12.662 though, NOTE Confidence: 0.905848704545455 00:34:12.662 --> 00:34:13.452 in 2008, NOTE Confidence: 0.9058487045454555

00:34:13.452 --> 00:34:15.324 the FDA broadened the warning to

NOTE Confidence: 0.905848704545455

00:34:15.324 --> 00:34:17.467 include all NS psychotics and that's

NOTE Confidence: 0.905848704545455

00:34:17.467 --> 00:34:19.747 the warning that exists until today.

NOTE Confidence: 0.905848704545455

00:34:19.750 --> 00:34:20.200 So. NOTE Confidence: 0.829655466

 $00:34:22.960 \longrightarrow 00:34:25.578$ Thankfully, our Appa came out with guidelines

NOTE Confidence: 0.829655466

 $00:34:25.578 \longrightarrow 00:34:28.737$ in 2016 and and those of us who serve on

NOTE Confidence: 0.829655466

 $00:34:28.737 \longrightarrow 00:34:30.658$ various committees at the APPA and AGP.

NOTE Confidence: 0.829655466

 $00:34:30.660 \longrightarrow 00:34:32.788$ We were able to inform or at least

NOTE Confidence: 0.829655466

 $00:34:32.788 \longrightarrow 00:34:35.140$ give some feedback on these guidelines.

NOTE Confidence: 0.829655466

 $00:34:35.140 \longrightarrow 00:34:36.895$ But I think the main the the main take

NOTE Confidence: 0.829655466

 $00:34:36.895 \longrightarrow 00:34:38.587$ home points that are on these guidelines

NOTE Confidence: 0.829655466

 $00:34:38.587 \longrightarrow 00:34:40.279$ are really what I just went over.

 $00:34:40.280 \longrightarrow 00:34:42.050$ You know, use these antipsychotics

NOTE Confidence: 0.829655466

 $00:34:42.050 \longrightarrow 00:34:43.820$ only if benefits outweigh risks.

NOTE Confidence: 0.829655466

 $00:34:43.820 \longrightarrow 00:34:45.420$ Start low and go slow.

NOTE Confidence: 0.829655466

 $00:34:45.420 \longrightarrow 00:34:47.346$ If there are adverse effects, continue

NOTE Confidence: 0.829655466

 $00:34:47.346 \longrightarrow 00:34:50.608$ to monitor risk and benefits of need.

NOTE Confidence: 0.829655466

 $00:34:50.610 \longrightarrow 00:34:52.160$ Really importantly, if no response

NOTE Confidence: 0.829655466

00:34:52.160 --> 00:34:54.530 after four weeks on an adequate dose,

NOTE Confidence: 0.829655466

 $00:34:54.530 \longrightarrow 00:34:55.733$ try something else,

NOTE Confidence: 0.829655466

00:34:55.733 --> 00:34:56.936 taper and discontinue,

NOTE Confidence: 0.829655466

 $00:34:56.940 \longrightarrow 00:34:59.044$ and then when there is an adequate response.

NOTE Confidence: 0.829655466

 $00{:}34{:}59.050 \dashrightarrow 00{:}35{:}00.556$ If there is a controversial statement

NOTE Confidence: 0.829655466

 $00:35:00.556 \longrightarrow 00:35:02.130$ in any of these guidelines,

NOTE Confidence: 0.829655466

 $00:35:02.130 \longrightarrow 00:35:03.700$ it's probably this bullet point

NOTE Confidence: 0.829655466

 $00:35:03.700 \longrightarrow 00:35:05.690$ based on the Devon on study.

NOTE Confidence: 0.829655466

 $00:35:05.690 \longrightarrow 00:35:07.676$ Because if if if you

NOTE Confidence: 0.829655466

 $00:35:07.676 \longrightarrow 00:35:08.669$ follow these guidelines,

 $00:35:08.670 \longrightarrow 00:35:10.662$ they would suggest no matter what tape the

NOTE Confidence: 0.829655466

 $00:35:10.662 \longrightarrow 00:35:12.669$ taper them off the drug after four months,

NOTE Confidence: 0.829655466

00:35:12.670 --> 00:35:14.478 unless you've had previous

NOTE Confidence: 0.829655466

00:35:14.478 --> 00:35:16.738 experience with a recurrence of

NOTE Confidence: 0.829655466

 $00:35:16.738 \dashrightarrow 00:35:18.678$ symptoms that are problematic.

NOTE Confidence: 0.829655466

 $00:35:18.680 \longrightarrow 00:35:19.370$ And then again,

NOTE Confidence: 0.829655466

 $00:35:19.370 \longrightarrow 00:35:20.980$ avoid Haldol as a first line agent,

NOTE Confidence: 0.829655466

00:35:20.980 --> 00:35:22.534 because if you look at subsequent data,

NOTE Confidence: 0.829655466

 $00:35:22.540 \longrightarrow 00:35:24.214$ which really seem to show that

NOTE Confidence: 0.829655466

 $00:35:24.214 \longrightarrow 00:35:26.075$ the mortality risk is higher with

NOTE Confidence: 0.829655466

 $00{:}35{:}26.075 \dashrightarrow 00{:}35{:}27.800$ the with the conventional agents,

NOTE Confidence: 0.829655466

 $00:35:27.800 \longrightarrow 00:35:29.634$ how paradol seems to have a higher

NOTE Confidence: 0.829655466

 $00{:}35{:}29.634 \dashrightarrow 00{:}35{:}31.283$ mortality rate than than the atypicals

NOTE Confidence: 0.829655466

 $00:35:31.283 \longrightarrow 00:35:33.180$ that we want to avoid haloperidol and

NOTE Confidence: 0.829655466

 $00:35:33.236 \longrightarrow 00:35:35.238$ then there's really no data with long

 $00:35:35.238 \longrightarrow 00:35:38.390$ acting injectables in this population.

NOTE Confidence: 0.829655466

 $00:35:38.390 \longrightarrow 00:35:40.427$ So what are we supposed to do?

NOTE Confidence: 0.829655466

00:35:40.430 --> 00:35:41.630 One thing I'll just mention,

NOTE Confidence: 0.829655466

 $00:35:41.630 \longrightarrow 00:35:42.107$ which is not.

NOTE Confidence: 0.829655466

00:35:42.107 --> 00:35:43.570 I don't think I have a slide on this,

NOTE Confidence: 0.829655466

 $00:35:43.570 \longrightarrow 00:35:45.490$ but it's important to know is

NOTE Confidence: 0.829655466

 $00:35:45.490 \longrightarrow 00:35:46.450$ that these drugs?

NOTE Confidence: 0.829655466

 $00:35:46.450 \longrightarrow 00:35:48.185$ These antipsychotic drugs and frank

NOTE Confidence: 0.829655466

 $00{:}35{:}48.185 \dashrightarrow 00{:}35{:}50.310$ and in fact all psychiatric drugs,

NOTE Confidence: 0.829655466

 $00:35:50.310 \longrightarrow 00:35:52.662$ are heavily regulated by the federal

NOTE Confidence: 0.829655466

00:35:52.662 --> 00:35:54.532 government in nursing homes in

NOTE Confidence: 0.829655466

 $00:35:54.532 \longrightarrow 00:35:55.740$ federally funded nursing homes.

NOTE Confidence: 0.829655466

00:35:55.740 --> 00:35:57.530 Because of Medicare and Medicaid,

NOTE Confidence: 0.829655466

 $00:35:57.530 \longrightarrow 00:35:59.372$ seems highly regulates the use of

NOTE Confidence: 0.829655466

 $00:35:59.372 \longrightarrow 00:36:01.290$ these drugs in those facilities.

NOTE Confidence: 0.829655466

00:36:01.290 --> 00:36:03.850 When can you start? How do you monitor?

 $00:36:03.850 \longrightarrow 00:36:06.600$ What do you have to document, etc.

NOTE Confidence: 0.829655466

 $00:36:06.600 \longrightarrow 00:36:08.166$ But the same patient with the

NOTE Confidence: 0.829655466

 $00:36:08.166 \longrightarrow 00:36:09.707$ same problems who happens to live

NOTE Confidence: 0.829655466

 $00:36:09.707 \longrightarrow 00:36:11.057$ in assisted living or at home.

NOTE Confidence: 0.829655466

 $00:36:11.060 \longrightarrow 00:36:12.596$ We can do whatever we want,

NOTE Confidence: 0.829655466

 $00{:}36{:}12.600 \dashrightarrow 00{:}36{:}15.080$ so there's got to be a balance between

NOTE Confidence: 0.829655466

00:36:15.080 --> 00:36:16.799 over regulation and no regulation,

NOTE Confidence: 0.829655466

 $00:36:16.800 \longrightarrow 00:36:19.278$ because we do see misuse of these

NOTE Confidence: 0.829655466

 $00:36:19.278 \longrightarrow 00:36:21.370$ medications all the time when the

NOTE Confidence: 0.829655466

 $00:36:21.370 \longrightarrow 00:36:23.284$ warning first came out in 05,

NOTE Confidence: 0.829655466

 $00:36:23.290 \longrightarrow 00:36:25.482$ a lot of our colleagues in nursing home

NOTE Confidence: 0.829655466

 $00:36:25.482 \longrightarrow 00:36:27.122$ settings who were non psychiatrists

NOTE Confidence: 0.829655466

 $00{:}36{:}27.122 \dashrightarrow 00{:}36{:}29.192$ said well for medical legal reasons,

NOTE Confidence: 0.829655466

 $00:36:29.200 \longrightarrow 00:36:31.480$ well, it's avoid alanza Pean.

NOTE Confidence: 0.829655466

 $00:36:31.480 \longrightarrow 00:36:32.998$ Let's put them on Ativan instead.

00:36:33.000 --> 00:36:33.232 Well,

NOTE Confidence: 0.829655466

 $00:36:33.232 \longrightarrow 00:36:34.624$ that's not a good idea because

NOTE Confidence: 0.829655466

 $00:36:34.624 \longrightarrow 00:36:35.320$ of tolerability issues.

NOTE Confidence: 0.829655466

00:36:35.320 --> 00:36:37.147 We'll talk more about in a minute.

NOTE Confidence: 0.829655466

 $00:36:37.150 \longrightarrow 00:36:38.770$ And I just say go back to the basics

NOTE Confidence: 0.829655466

 $00:36:38.770 \longrightarrow 00:36:40.228$ like we talked about what's causing

NOTE Confidence: 0.829655466

 $00{:}36{:}40.228 \dashrightarrow 00{:}36{:}41.770$ these problems in the 1st place.

NOTE Confidence: 0.829655466

 $00:36:41.770 \longrightarrow 00:36:43.770$ Always employ these behavioral

NOTE Confidence: 0.829655466

 $00:36:43.770 \longrightarrow 00:36:44.770$ interventions first,

NOTE Confidence: 0.829655466

 $00:36:44.770 \longrightarrow 00:36:46.186$ and then if we're going to

NOTE Confidence: 0.829655466

 $00:36:46.186 \longrightarrow 00:36:46.658$ use antipsychotics,

NOTE Confidence: 0.829655466

 $00:36:46.660 \longrightarrow 00:36:48.544$ which sometimes are indicated,

NOTE Confidence: 0.829655466

 $00:36:48.544 \longrightarrow 00:36:50.899$ do it with informed consent,

NOTE Confidence: 0.829655466

 $00:36:50.900 \longrightarrow 00:36:53.090$ and I've never had a family member say to me.

NOTE Confidence: 0.829655466 00:36:53.090 --> 00:36:53.365 Well, NOTE Confidence: 0.829655466

00:36:53.365 --> 00:36:55.015 don't treat my mom who's wandering

00:36:55.015 --> 00:36:57.019 into the street at night because she

NOTE Confidence: 0.829655466

00:36:57.019 --> 00:36:58.699 sees things outside or she's worried

NOTE Confidence: 0.948626206538462

 $00:36:58.757 \longrightarrow 00:37:00.575$ about people talking behind her back.

NOTE Confidence: 0.948626206538462

00:37:00.580 --> 00:37:01.402 But within antipsychotic,

NOTE Confidence: 0.948626206538462

 $00:37:01.402 \dashrightarrow 00:37:03.919$ because it may lead to a small risk of

NOTE Confidence: 0.948626206538462

 $00:37:03.919 \longrightarrow 00:37:05.809$ death or mortality when there are safety

NOTE Confidence: 0.948626206538462

 $00:37:05.809 \longrightarrow 00:37:07.648$ issues concerned and the families are.

NOTE Confidence: 0.948626206538462

 $00:37:07.650 \longrightarrow 00:37:09.040$ Caring for their loved ones,

NOTE Confidence: 0.948626206538462

 $00:37:09.040 \dashrightarrow 00:37:11.128$ they understand the risk benefit equation,

NOTE Confidence: 0.948626206538462

 $00:37:11.130 \longrightarrow 00:37:14.875$ but we've got to give informed consent.

NOTE Confidence: 0.948626206538462

 $00:37:14.880 \longrightarrow 00:37:16.536$ So that's probably more than you

NOTE Confidence: 0.948626206538462

 $00:37:16.536 \longrightarrow 00:37:18.480$ wanted to know about antipsychotics,

NOTE Confidence: 0.948626206538462

 $00{:}37{:}18.480 \dashrightarrow 00{:}37{:}20.310$ Deppe code or dival proex was

NOTE Confidence: 0.948626206538462

 $00:37:20.310 \longrightarrow 00:37:22.530$ studied in at least four well

NOTE Confidence: 0.948626206538462

 $00:37:22.530 \longrightarrow 00:37:24.398$ designed randomized control trials.

 $00:37:24.400 \longrightarrow 00:37:25.824$ In many case series,

NOTE Confidence: 0.948626206538462

 $00:37:25.824 \longrightarrow 00:37:28.680$ there is evidence for reduction of agitation,

NOTE Confidence: 0.948626206538462

 $00:37:28.680 \longrightarrow 00:37:30.955$ but for whatever reason in in three

NOTE Confidence: 0.948626206538462

 $00:37:30.955 \longrightarrow 00:37:33.531$ of the trials there was no benefit

NOTE Confidence: 0.948626206538462

00:37:33.531 --> 00:37:35.446 on the primary outcome measure,

NOTE Confidence: 0.948626206538462

 $00:37:35.450 \longrightarrow 00:37:37.858$ but there was some benefit on a secondary

NOTE Confidence: 0.948626206538462

00:37:37.860 --> 00:37:41.180 and then in this ADC S trial which was done,

NOTE Confidence: 0.948626206538462

 $00:37:41.180 \longrightarrow 00:37:42.916$ there was no benefit on any measure.

NOTE Confidence: 0.948626206538462

 $00:37:42.920 \longrightarrow 00:37:44.996$ So since that trial came out,

NOTE Confidence: 0.948626206538462

 $00:37:45.000 \longrightarrow 00:37:46.120$ there's been less use of.

NOTE Confidence: 0.948626206538462

 $00{:}37{:}46.120 --> 00{:}37{:}46.462 \ \mathrm{Divalproex},$

NOTE Confidence: 0.948626206538462

 $00:37:46.462 \longrightarrow 00:37:48.856$ one of the other issues is tolerability

NOTE Confidence: 0.948626206538462

 $00:37:48.856 \longrightarrow 00:37:50.669$ with gate disturbance tremor,

NOTE Confidence: 0.948626206538462

 $00:37:50.670 \longrightarrow 00:37:51.708$ even delirium.

NOTE Confidence: 0.948626206538462

00:37:51.708 --> 00:37:54.303 Some have been using gabapentin

NOTE Confidence: 0.948626206538462

 $00{:}37{:}54.303 \dashrightarrow 00{:}37{:}56.340$ without almost any data,

 $00:37:56.340 \longrightarrow 00:37:58.594$ and there's some interest in doing an

NOTE Confidence: 0.948626206538462

 $00:37:58.594 \longrightarrow 00:38:00.292$ actual randomized trial with gabapentin

NOTE Confidence: 0.948626206538462

 $00{:}38{:}00.292 \dashrightarrow 00{:}38{:}02.456$ because of its anxiolytic and effects.

NOTE Confidence: 0.948626206538462

00:38:02.456 --> 00:38:04.320 Perhaps on behavioral disinhibition,

NOTE Confidence: 0.948626206538462

 $00:38:04.320 \longrightarrow 00:38:07.056$ but there really is limited data.

NOTE Confidence: 0.948626206538462

00:38:07.060 --> 00:38:08.890 There's good data with the rise

NOTE Confidence: 0.948626206538462

 $00:38:08.890 \longrightarrow 00:38:10.936$ and our colleagues at Hopkins in

NOTE Confidence: 0.948626206538462

 $00{:}38{:}10.936 \dashrightarrow 00{:}38{:}12.456$ Rochester and elsewhere collaborated

NOTE Confidence: 0.948626206538462

00:38:12.456 --> 00:38:14.887 on this Itala PRAM trial and

NOTE Confidence: 0.948626206538462

 $00{:}38{:}14.887 \dashrightarrow 00{:}38{:}16.579$ agitation and Alzheimer's disease.

NOTE Confidence: 0.948626206538462

 $00:38:16.580 \longrightarrow 00:38:18.212$ I want to make the important

NOTE Confidence: 0.948626206538462

 $00:38:18.212 \longrightarrow 00:38:20.019$ point that this is for agitation

NOTE Confidence: 0.948626206538462

 $00{:}38{:}20.019 \dashrightarrow 00{:}38{:}21.975$ and also arm is not depression.

NOTE Confidence: 0.948626206538462

 $00{:}38{:}21.980 \dashrightarrow 00{:}38{:}24.030$ Almost all of the antidepressant

NOTE Confidence: 0.948626206538462

 $00:38:24.030 \longrightarrow 00:38:26.080$ trials for depression and dementia

 $00:38:26.150 \longrightarrow 00:38:27.990$ have not been positive trials.

NOTE Confidence: 0.948626206538462

 $00{:}38{:}27.990 \dashrightarrow 00{:}38{:}29.747$ But this one, the sital Apram study,

NOTE Confidence: 0.948626206538462

 $00:38:29.750 \longrightarrow 00:38:30.545$ was for agitation,

NOTE Confidence: 0.948626206538462

 $00{:}38{:}30.545 \dashrightarrow 00{:}38{:}33.468$ a dosing range of 10 to 30 milligrams a day.

NOTE Confidence: 0.948626206538462

 $00:38:33.470 \longrightarrow 00:38:35.810$ The behavioral effects were noted,

NOTE Confidence: 0.948626206538462

 $00:38:35.810 \longrightarrow 00:38:37.448$ and the thing we have to watch out for

NOTE Confidence: 0.948626206538462

 $00:38:37.448 \longrightarrow 00:38:39.286$ in the elderly is the QTC prolongation.

NOTE Confidence: 0.948626206538462

 $00:38:39.290 \longrightarrow 00:38:41.100$ Above 20 milligrams a day,

NOTE Confidence: 0.948626206538462

 $00:38:41.100 \longrightarrow 00:38:43.220$ this is with sital apram.

NOTE Confidence: 0.948626206538462

 $00:38:43.220 \longrightarrow 00:38:45.530$ There's now an escitalopram study going on.

NOTE Confidence: 0.948626206538462

00:38:45.530 --> 00:38:47.108 This was called site at the

NOTE Confidence: 0.948626206538462

 $00:38:47.108 \longrightarrow 00:38:48.788$ next one is called S site AD,

NOTE Confidence: 0.948626206538462

 $00:38:48.790 \longrightarrow 00:38:51.086$ and so we'll see what that one shows.

NOTE Confidence: 0.948626206538462

00:38:51.090 --> 00:38:52.926 So let me tell you a little bit about

NOTE Confidence: 0.948626206538462

 $00:38:52.926 \longrightarrow 00:38:54.442$ our journey with novel therapeutics

NOTE Confidence: 0.948626206538462

 $00{:}38{:}54.442 \dashrightarrow 00{:}38{:}56.326$ before I go into public health.

 $00:38:56.330 \longrightarrow 00:38:58.454$ So a number of years ago

NOTE Confidence: 0.948626206538462

00:38:58.454 --> 00:38:59.870 I was medical Director,

NOTE Confidence: 0.948626206538462

 $00{:}38{:}59.870 \dashrightarrow 00{:}39{:}02.330$ an inpatient geriatric psychiatry unit,

NOTE Confidence: 0.948626206538462

00:39:02.330 --> 00:39:04.614 18 beds, all dementia,

NOTE Confidence: 0.948626206538462

 $00:39:04.614 \longrightarrow 00:39:06.327$ all behaviorally disturbed.

NOTE Confidence: 0.948626206538462

 $00:39:06.330 \longrightarrow 00:39:08.706$ All there for two to three

NOTE Confidence: 0.948626206538462

 $00:39:08.706 \longrightarrow 00:39:10.290$ weeks of acute treatment.

NOTE Confidence: 0.948626206538462

00:39:10.290 --> 00:39:12.971 And it was a really amazing experience

NOTE Confidence: 0.948626206538462

 $00:39:12.971 \longrightarrow 00:39:15.100$ actually and and still exists.

NOTE Confidence: 0.948626206538462 00:39:15.100 --> 00:39:15.412 Today. NOTE Confidence: 0.948626206538462

 $00:39:15.412 \longrightarrow 00:39:17.284$ We had this woman who came

NOTE Confidence: 0.948626206538462

 $00:39:17.284 \longrightarrow 00:39:19.028$ in at the age of 67.

NOTE Confidence: 0.948626206538462

 $00{:}39{:}19.030 \dashrightarrow 00{:}39{:}20.344$ She had been diagnosed by colleagues

NOTE Confidence: 0.948626206538462

 $00{:}39{:}20.344 \dashrightarrow 00{:}39{:}22.166$ of mine at mass general a decade

NOTE Confidence: 0.948626206538462

00:39:22.166 --> 00:39:23.370 earlier with Alzheimer's disease.

 $00:39:23.370 \longrightarrow 00:39:25.410$ She was now 10 years into an illness.

NOTE Confidence: 0.948626206538462

 $00{:}39{:}25.410 \dashrightarrow 00{:}39{:}26.918$ She was essentially minimally

NOTE Confidence: 0.948626206538462

 $00:39:26.918 \longrightarrow 00:39:28.803$ verbally responsive at this point.

NOTE Confidence: 0.948626206538462

 $00:39:28.810 \longrightarrow 00:39:31.134$ She had attribute on her MRI demonstrating

NOTE Confidence: 0.948626206538462

00:39:31.134 --> 00:39:32.130 consistency with Alzheimer's,

NOTE Confidence: 0.948626206538462

 $00:39:32.130 \longrightarrow 00:39:34.377$ dementia, and at home with her spouse.

NOTE Confidence: 0.948626206538462

 $00:39:34.380 \longrightarrow 00:39:36.636$ The problem wasn't her her profound

NOTE Confidence: 0.948626206538462

00:39:36.636 --> 00:39:38.790 cognitive impairment or lack of speech.

NOTE Confidence: 0.948626206538462

 $00:39:38.790 \longrightarrow 00:39:40.659$ It was physical aggression with her spouse.

NOTE Confidence: 0.948626206538462

00:39:40.660 --> 00:39:42.185 Her husband really was overwhelmed

NOTE Confidence: 0.948626206538462

 $00{:}39{:}42.185 \dashrightarrow 00{:}39{:}44.536$ and she had at that .12

NOTE Confidence: 0.948626206538462

 $00:39:44.536 \longrightarrow 00:39:46.082$ failed medication trials and she

NOTE Confidence: 0.948626206538462

 $00{:}39{:}46.082 \dashrightarrow 00{:}39{:}47.690$ really was not able to go into a

NOTE Confidence: 0.918661481904762

 $00:39:47.749 \longrightarrow 00:39:49.234$ nursing home from that situation

NOTE Confidence: 0.918661481904762

 $00:39:49.234 \longrightarrow 00:39:51.180$ and he couldn't manage her anymore.

NOTE Confidence: 0.918661481904762

 $00:39:51.180 \longrightarrow 00:39:53.496$ So she came in the hospital.

 $00:39:53.500 \longrightarrow 00:39:55.768$ Her name was Louise,

NOTE Confidence: 0.918661481904762

00:39:55.770 --> 00:39:57.602 two months in and I tell you her

NOTE Confidence: 0.918661481904762

 $00{:}39{:}57.602 \dashrightarrow 00{:}39{:}58.952$ name because her daughter has

NOTE Confidence: 0.918661481904762

 $00:39:58.952 \longrightarrow 00:40:00.620$ been very public with her story.

NOTE Confidence: 0.918661481904762

 $00:40:00.620 \longrightarrow 00:40:03.032$ So two months into her hospital

NOTE Confidence: 0.918661481904762

 $00:40:03.032 \longrightarrow 00:40:05.000$ course she was really not responding.

NOTE Confidence: 0.918661481904762

 $00:40:05.000 \longrightarrow 00:40:06.940$ We tried every imaginable medication.

NOTE Confidence: 0.918661481904762

 $00{:}40{:}06.940 \dashrightarrow 00{:}40{:}08.072$ She had tolerability concerns

NOTE Confidence: 0.918661481904762

 $00:40:08.072 \longrightarrow 00:40:09.770$ or she didn't respond and my

NOTE Confidence: 0.918661481904762

 $00{:}40{:}09.819 \dashrightarrow 00{:}40{:}11.427$ colleague who I was working with,

NOTE Confidence: 0.918661481904762

00:40:11.430 --> 00:40:12.900 Doctor Alex Stoyer, said, well,

NOTE Confidence: 0.918661481904762

00:40:12.900 --> 00:40:14.658 what about ECT, and I said, well,

NOTE Confidence: 0.918661481904762

 $00{:}40{:}14.658 \dashrightarrow 00{:}40{:}16.148$ why would you treat somebody

NOTE Confidence: 0.918661481904762

00:40:16.148 --> 00:40:17.580 with advanced dementia with ECT?

NOTE Confidence: 0.918661481904762

00:40:17.580 --> 00:40:20.100 I mean already she's got cognitive problems.

 $00:40:20.100 \longrightarrow 00:40:20.618$ He's like.

NOTE Confidence: 0.918661481904762

00:40:20.618 --> 00:40:22.431 Well, it can't get much worse and

NOTE Confidence: 0.918661481904762

 $00:40:22.431 \longrightarrow 00:40:24.320$ really other than palliative sedation,

NOTE Confidence: 0.918661481904762

 $00:40:24.320 \longrightarrow 00:40:25.657$ I'm not sure we have many options.

NOTE Confidence: 0.918661481904762

 $00:40:25.660 \longrightarrow 00:40:27.620$ Here and there was a small literature at

NOTE Confidence: 0.918661481904762

00:40:27.620 --> 00:40:29.720 the time on the use of ECT for patients,

NOTE Confidence: 0.918661481904762

 $00:40:29.720 \longrightarrow 00:40:31.136$ again with refractory agitation.

NOTE Confidence: 0.918661481904762

 $00:40:31.136 \longrightarrow 00:40:33.260$ This was not depression and dementia.

NOTE Confidence: 0.918661481904762

 $00{:}40{:}33.260 \rightarrow 00{:}40{:}35.990$ This was aggression and dementia.

NOTE Confidence: 0.918661481904762

 $00:40:35.990 \longrightarrow 00:40:40.558$ So with consent from the caregiver and from.

NOTE Confidence: 0.918661481904762

00:40:40.560 --> 00:40:42.378 Appropriate medical clearance with our team.

NOTE Confidence: 0.918661481904762

 $00:40:42.380 \longrightarrow 00:40:44.740$ We treated her with ECT.

NOTE Confidence: 0.918661481904762

 $00:40:44.740 \longrightarrow 00:40:46.280$ She had eight in patient

NOTE Confidence: 0.918661481904762

 $00:40:46.280 \longrightarrow 00:40:46.896$ bilateral treatments.

NOTE Confidence: 0.918661481904762

 $00:40:46.900 \longrightarrow 00:40:48.788$ The profound effect was

NOTE Confidence: 0.918661481904762

00:40:48.788 --> 00:40:50.676 remarkable with some evidence.

 $00:40:50.680 \longrightarrow 00:40:52.445$ After the third treatment and

NOTE Confidence: 0.918661481904762

 $00{:}40{:}52.445 \dashrightarrow 00{:}40{:}53.857$ then pretty remarkable improvement

NOTE Confidence: 0.918661481904762

00:40:53.857 --> 00:40:55.529 after the 8th when she went home

NOTE Confidence: 0.918661481904762

 $00:40:55.529 \longrightarrow 00:40:57.239$ she was down to two medications,

NOTE Confidence: 0.918661481904762

 $00:40:57.240 \longrightarrow 00:41:00.264$ really only as a talip RAM at that time.

NOTE Confidence: 0.918661481904762

 $00:41:00.270 \longrightarrow 00:41:02.538$ And and what's amazing about this woman

NOTE Confidence: 0.918661481904762

 $00:41:02.538 \longrightarrow 00:41:05.268$ is that she was treated at McLean

NOTE Confidence: 0.918661481904762

 $00{:}41{:}05.268 {\:\raisebox{--}{\text{--}}}{\:\raisebox{--}{\text{--}}}{\:\raisebox{--}{\text{--}}} 00{:}41{:}07.383$ Hospital monthly with maintenance ECT.

NOTE Confidence: 0.918661481904762

 $00:41:07.390 \longrightarrow 00:41:09.850$ For the next 10 years.

NOTE Confidence: 0.918661481904762

 $00:41:09.850 \longrightarrow 00:41:11.782$ And then she passed away from

NOTE Confidence: 0.918661481904762

00:41:11.782 --> 00:41:13.700 metastatic cancer about six years ago.

NOTE Confidence: 0.918661481904762

00:41:13.700 --> 00:41:15.689 So the daughter,

NOTE Confidence: 0.918661481904762

 $00{:}41{:}15.689 \dashrightarrow 00{:}41{:}18.612$ who was very much impacted by her

NOTE Confidence: 0.918661481904762

00:41:18.612 --> 00:41:19.777 mom's illness and then became

NOTE Confidence: 0.918661481904762

 $00:41:19.777 \longrightarrow 00:41:21.402$ a big advocate for Alzheimer's

00:41:21.402 --> 00:41:22.746 disease research and treatment,

NOTE Confidence: 0.918661481904762

00:41:22.750 --> 00:41:25.571 also helped to support our further study

NOTE Confidence: 0.918661481904762

00:41:25.571 --> 00:41:29.257 of this one thing I'll say about this case,

NOTE Confidence: 0.918661481904762

 $00:41:29.260 \longrightarrow 00:41:31.031$ which was also amazing is that it

NOTE Confidence: 0.918661481904762

00:41:31.031 --> 00:41:33.381 LED us to treat more people like her

NOTE Confidence: 0.918661481904762

 $00:41:33.381 \longrightarrow 00:41:35.620$ with ECT and then collect data on it.

NOTE Confidence: 0.918661481904762

 $00:41:35.620 \longrightarrow 00:41:38.294$ And so we published one study that

NOTE Confidence: 0.918661481904762

00:41:38.294 --> 00:41:40.304 was 16 patients retrospective chart

NOTE Confidence: 0.918661481904762

 $00:41:40.304 \longrightarrow 00:41:43.760$ review with very poor data other than us.

NOTE Confidence: 0.918661481904762

00:41:43.760 --> 00:41:45.920 Filling out a Pittsburgh agitation

NOTE Confidence: 0.918661481904762

 $00{:}41{:}45.920 \dashrightarrow 00{:}41{:}48.604$ scale based on you know 3 physicians

NOTE Confidence: 0.918661481904762

 $00:41:48.604 \longrightarrow 00:41:50.680$ agreeing to how symptomatic patients were.

NOTE Confidence: 0.918661481904762

 $00:41:50.680 \longrightarrow 00:41:52.456$ And then we decided to collect more data,

NOTE Confidence: 0.918661481904762

 $00:41:52.460 \longrightarrow 00:41:54.060$ but.

NOTE Confidence: 0.918661481904762

00:41:54.060 --> 00:41:55.540 One of the questions that's come up is,

NOTE Confidence: 0.918661481904762

 $00:41:55.540 \longrightarrow 00:41:56.638$ well, what about quality of life?

 $00:41:56.640 \longrightarrow 00:41:59.048$ And so this was Louise when in her

NOTE Confidence: 0.918661481904762

00:41:59.048 --> 00:42:00.700 earlier days and Karen statement

NOTE Confidence: 0.918661481904762

 $00:42:00.700 \longrightarrow 00:42:02.800$ about her mom and she basically

NOTE Confidence: 0.918661481904762

 $00:42:02.800 \longrightarrow 00:42:05.021$ said that my mom was a petite 5

NOTE Confidence: 0.918661481904762

00:42:05.021 --> 00:42:07.312 foot three 115 pound terror winner,

NOTE Confidence: 0.918661481904762

 $00:42:07.312 \longrightarrow 00:42:09.049$ aggression reared, she was uncontrollable,

NOTE Confidence: 0.918661481904762

 $00:42:09.049 \longrightarrow 00:42:10.464$ her medicines were losing efficacy

NOTE Confidence: 0.918661481904762

 $00{:}42{:}10.464 \dashrightarrow 00{:}42{:}12.108$ and it became so dangerous for our

NOTE Confidence: 0.918661481904762

00:42:12.108 --> 00:42:13.844 in home aide and my dad and I that

NOTE Confidence: 0.918661481904762

 $00:42:13.844 \longrightarrow 00:42:16.016$ we had no option but to place her at

NOTE Confidence: 0.918661481904762

00:42:16.016 --> 00:42:17.760 McLean Hospital on the inpatient unit.

NOTE Confidence: 0.918661481904762

 $00:42:17.760 \longrightarrow 00:42:19.257$ But from that very first, ECT.

NOTE Confidence: 0.918661481904762

 $00{:}42{:}19.257 \dashrightarrow 00{:}42{:}21.039$ The medical teams my father and

NOTE Confidence: 0.918661481904762

 $00{:}42{:}21.039 \dashrightarrow 00{:}42{:}23.239$ I were were rendered speechless.

NOTE Confidence: 0.918661481904762

 $00:42:23.240 \longrightarrow 00:42:24.600$ Walking down the hallway after

 $00:42:24.600 \longrightarrow 00:42:25.416$ that first treatment.

NOTE Confidence: 0.918661481904762

 $00:42:25.420 \longrightarrow 00:42:26.584$ She came at me like she

NOTE Confidence: 0.918661481904762

 $00:42:26.584 \longrightarrow 00:42:27.360$ used to win aggressive,

NOTE Confidence: 0.918661481904762

 $00:42:27.360 \longrightarrow 00:42:28.970$ but this time she reached her arms.

NOTE Confidence: 0.918661481904762

 $00:42:28.970 \longrightarrow 00:42:30.230$ Let's rub my cheek lovingly.

NOTE Confidence: 0.779752866666667

 $00:42:30.230 \longrightarrow 00:42:32.516$ Shanda smile from ear to ear.

NOTE Confidence: 0.779752866666667

 $00:42:32.520 \longrightarrow 00:42:34.416$ And tears rolled down my cheeks.

NOTE Confidence: 0.779752866666667

 $00:42:34.420 \longrightarrow 00:42:35.940$ Her agitation and aggression

NOTE Confidence: 0.779752866666667

 $00:42:35.940 \longrightarrow 00:42:36.700$ nearly disappeared.

NOTE Confidence: 0.779752866666667

 $00:42:36.700 \longrightarrow 00:42:38.716$ She went from 31 medicines to one.

NOTE Confidence: 0.779752866666667

 $00{:}42{:}38.720 \dashrightarrow 00{:}42{:}40.456$ We brought her back home and were

NOTE Confidence: 0.779752866666667

 $00:42:40.456 \longrightarrow 00:42:42.080$ blessed with another 10 years with her.

NOTE Confidence: 0.779752866666667

 $00:42:42.080 \longrightarrow 00:42:44.102$ This gave my mother tremendous quality

NOTE Confidence: 0.779752866666667

00:42:44.102 --> 00:42:46.493 of life and quality of care and my

NOTE Confidence: 0.779752866666667

00:42:46.493 --> 00:42:47.916 father gave my father, his wife and

NOTE Confidence: 0.779752866666667

 $00:42:47.916 \longrightarrow 00:42:49.439$ me and my mother and without ECT.

00:42:49.440 --> 00:42:51.376 She would never have seen me get married.

NOTE Confidence: 0.779752866666667

00:42:51.380 --> 00:42:53.116 So Karen was very public about this.

NOTE Confidence: 0.779752866666667

 $00:42:53.120 \longrightarrow 00:42:54.972$ She was on NPR.

NOTE Confidence: 0.779752866666667

 $00:42:54.972 \longrightarrow 00:42:57.287$ She she helped us some.

NOTE Confidence: 0.779752866666667

00:42:57.290 --> 00:43:00.398 Like I mentioned with our grant.

NOTE Confidence: 0.779752866666667

 $00:43:00.400 \longrightarrow 00:43:02.260$ Alright, So what about the data?

NOTE Confidence: 0.779752866666667

 $00:43:02.260 \longrightarrow 00:43:04.150$ So we we then realized that the

NOTE Confidence: 0.779752866666667

 $00:43:04.150 \longrightarrow 00:43:05.659$ retrospective chart review is not enough.

NOTE Confidence: 0.779752866666667

 $00{:}43{:}05.660 \dashrightarrow 00{:}43{:}07.876$ Let's try to collect some data that we

NOTE Confidence: 0.779752866666667

00:43:07.876 --> 00:43:10.680 could find from doing a prospective study,

NOTE Confidence: 0.779752866666667

 $00:43:10.680 \longrightarrow 00:43:11.880$ and we thought we'd be clever.

NOTE Confidence: 0.779752866666667

 $00:43:11.880 \longrightarrow 00:43:13.637$ We thought we would have two groups.

NOTE Confidence: 0.779752866666667

 $00{:}43{:}13.640 \dashrightarrow 00{:}43{:}15.260$ We would not randomize people,

NOTE Confidence: 0.779752866666667

 $00:43:15.260 \longrightarrow 00:43:18.239$ but for those people who agreed to get ECT.

NOTE Confidence: 0.779752866666667

 $00:43:18.240 \longrightarrow 00:43:19.280$ They would get ECT.

00:43:19.280 --> 00:43:20.840 And for those who said no,

NOTE Confidence: 0.779752866666667

 $00:43:20.840 \longrightarrow 00:43:22.406$ we would just follow them naturalistically.

NOTE Confidence: 0.779752866666667

 $00:43:22.410 \longrightarrow 00:43:25.133$ And by the time we actually intervene

NOTE Confidence: 0.779752866666667

00:43:25.133 --> 00:43:27.139 with ECT everybody wanted ECT.

NOTE Confidence: 0.779752866666667

 $00:43:27.140 \longrightarrow 00:43:29.108$ So this was the scale that we used

NOTE Confidence: 0.779752866666667

00:43:29.108 --> 00:43:31.592 as the primary outcome measure the

NOTE Confidence: 0.779752866666667

 $00:43:31.592 \longrightarrow 00:43:33.516$ Cohen Mansfield agitation inventory.

NOTE Confidence: 0.779752866666667

 $00:43:33.520 \longrightarrow 00:43:35.170$ Patients were in the hospital on

NOTE Confidence: 0.779752866666667

00:43:35.170 --> 00:43:37.155 average of four weeks before the 1st

NOTE Confidence: 0.779752866666667

00:43:37.155 --> 00:43:39.080 ECT treatment and these were people who

NOTE Confidence: 0.779752866666667

 $00{:}43{:}39.141 \dashrightarrow 00{:}43{:}40.976$ had failed multiple medicine trials.

NOTE Confidence: 0.779752866666667

 $00:43:40.980 \longrightarrow 00:43:43.493$ They had on average 9.4 treatments and

NOTE Confidence: 0.779752866666667

 $00:43:43.493 \longrightarrow 00:43:45.860$ we saw meaningful improvements again.

NOTE Confidence: 0.779752866666667

 $00:43:45.860 \longrightarrow 00:43:47.846$ Open label by the 3rd treatment

NOTE Confidence: 0.779752866666667

00:43:47.846 --> 00:43:49.607 that continued to improve through

NOTE Confidence: 0.779752866666667

00:43:49.607 --> 00:43:50.738 the 9th treatment.

00:43:50.740 --> 00:43:52.888 So we spent many years collecting

NOTE Confidence: 0.779752866666667

 $00:43:52.888 \longrightarrow 00:43:55.080$ data at multiple sites and putting

NOTE Confidence: 0.779752866666667

00:43:55.080 --> 00:43:56.805 together this amazing team and

NOTE Confidence: 0.779752866666667

 $00:43:56.805 \longrightarrow 00:43:58.680$ we now have a five year.

NOTE Confidence: 0.779752866666667

00:43:58.680 --> 00:44:01.784 R A1 funded in 2018 by the NIH,

NOTE Confidence: 0.779752866666667

00:44:01.790 --> 00:44:04.695 where we're randomizing people to to ECT,

NOTE Confidence: 0.779752866666667

 $00:44:04.700 \longrightarrow 00:44:05.948$ which is now right.

NOTE Confidence: 0.779752866666667

 $00:44:05.948 \longrightarrow 00:44:06.700$ Unilateral, brief,

NOTE Confidence: 0.779752866666667

00:44:06.700 --> 00:44:09.340 ultra pulse ECT versus simulated ECT,

NOTE Confidence: 0.779752866666667

 $00{:}44{:}09.340 \dashrightarrow 00{:}44{:}12.207$ which is essentially everything

NOTE Confidence: 0.779752866666667

 $00:44:12.207 \longrightarrow 00:44:12.901$ but anesthesia.

NOTE Confidence: 0.779752866666667

00:44:12.901 --> 00:44:15.760 We take people down to the ECT suite.

NOTE Confidence: 0.779752866666667

 $00{:}44{:}15.760 \dashrightarrow 00{:}44{:}17.055$ We keep them in a separate room.

NOTE Confidence: 0.779752866666667

 $00:44:17.060 \longrightarrow 00:44:18.224$ They get an Ivy.

NOTE Confidence: 0.779752866666667

 $00:44:18.224 \longrightarrow 00:44:19.970$ They get gel in their scalp

 $00:44:20.044 \longrightarrow 00:44:22.096$ but they do not get anesthesia.

NOTE Confidence: 0.779752866666667

 $00:44:22.100 \longrightarrow 00:44:22.736$ They're PRN.

NOTE Confidence: 0.779752866666667

 $00:44:22.736 \longrightarrow 00:44:24.962$ Medicines can be used in the treatment

NOTE Confidence: 0.779752866666667

 $00:44:24.962 \longrightarrow 00:44:27.362$ team is blind to their allocated group.

NOTE Confidence: 0.779752866666667

 $00:44:27.362 \longrightarrow 00:44:31.044$ This has been a labor of challenge.

NOTE Confidence: 0.779752866666667

00:44:31.050 --> 00:44:33.598 We have been having lots of difficulty

NOTE Confidence: 0.779752866666667

 $00:44:33.598 \longrightarrow 00:44:36.050$ with recruitment for a variety of reasons,

NOTE Confidence: 0.779752866666667

00:44:36.050 --> 00:44:38.370 not the least of which is this pandemic,

NOTE Confidence: 0.779752866666667

 $00:44:38.370 \longrightarrow 00:44:41.511$ but also it took a year to get an

NOTE Confidence: 0.779752866666667

00:44:41.511 --> 00:44:42.786 investigational device exemption

NOTE Confidence: 0.779752866666667

00:44:42.786 --> 00:44:44.067 from the FDA,

NOTE Confidence: 0.779752866666667

 $00:44:44.070 \longrightarrow 00:44:46.149$ but I can talk more about this

NOTE Confidence: 0.779752866666667

00:44:46.149 --> 00:44:47.925 in the Q&A at the same time I

NOTE Confidence: 0.779752866666667

 $00:44:47.925 \longrightarrow 00:44:48.810$ was working on this unit.

NOTE Confidence: 0.779752866666667

 $00:44:48.810 \longrightarrow 00:44:51.204$ We also were experimenting at the time

NOTE Confidence: 0.779752866666667

 $00:44:51.204 \longrightarrow 00:44:53.280$ with Dronabinol or Marinol because of

 $00:44:53.280 \longrightarrow 00:44:55.698$ its effects on CB1 and CB2 receptors,

NOTE Confidence: 0.779752866666667

 $00:44:55.698 \longrightarrow 00:44:57.483$ but in particular the CB1

NOTE Confidence: 0.779752866666667

 $00:44:57.483 \longrightarrow 00:44:59.664$ receptor that may mediate the

NOTE Confidence: 0.779752866666667

 $00:44:59.664 \longrightarrow 00:45:01.420$ anxiolytic effects of cannabinoids.

NOTE Confidence: 0.779752866666667

00:45:01.420 --> 00:45:02.332 And and so again,

NOTE Confidence: 0.779752866666667

 $00:45:02.332 \longrightarrow 00:45:04.085$ for those of you who are maybe

NOTE Confidence: 0.779752866666667

 $00:45:04.085 \longrightarrow 00:45:05.690$ in training and are thinking

NOTE Confidence: 0.779752866666667

 $00:45:05.690 \longrightarrow 00:45:06.974$ about a research career,

NOTE Confidence: 0.779752866666667

 $00{:}45{:}06.980 \dashrightarrow 00{:}45{:}09.584$ the idea of coming up with really

NOTE Confidence: 0.779752866666667

 $00{:}45{:}09.584 \dashrightarrow 00{:}45{:}11.240$ important clinical questions based on

NOTE Confidence: 0.779752866666667

 $00:45:11.240 \longrightarrow 00:45:12.416$ what you're seeing in front of you.

NOTE Confidence: 0.779752866666667

 $00{:}45{:}12.420 \dashrightarrow 00{:}45{:}13.790$ Research questions that could be

NOTE Confidence: 0.779752866666667

 $00{:}45{:}13.790 \dashrightarrow 00{:}45{:}15.160$ addressed through research is really,

NOTE Confidence: 0.946171553333333

 $00:45:15.160 \longrightarrow 00:45:17.548$ really guided by your clinical experience.

NOTE Confidence: 0.946171553333333

00:45:17.550 --> 00:45:19.495 So we started using dronabinol

00:45:19.495 --> 00:45:21.440 and we wound up publishing.

NOTE Confidence: 0.946171553333333

00:45:21.440 --> 00:45:23.106 You know a paper on 40 patients,

NOTE Confidence: 0.946171553333333

00:45:23.110 --> 00:45:24.760 but the theory behind this,

NOTE Confidence: 0.946171553333333

 $00:45:24.760 \longrightarrow 00:45:26.760$ and this was a paper we just published

NOTE Confidence: 0.946171553333333

 $00:45:26.760 \longrightarrow 00:45:28.634$ summarizing some of the literature on

NOTE Confidence: 0.946171553333333

 $00:45:28.634 \longrightarrow 00:45:29.954$ cannabinoids for Alzheimer's disease.

NOTE Confidence: 0.946171553333333

 $00:45:29.960 \longrightarrow 00:45:31.628$ For agitation in particular,

NOTE Confidence: 0.946171553333333

00:45:31.628 --> 00:45:33.713 like why would cannabinoids work?

NOTE Confidence: 0.946171553333333

 $00:45:33.720 \longrightarrow 00:45:35.232$ So there's a whole bunch of

NOTE Confidence: 0.946171553333333

 $00:45:35.232 \longrightarrow 00:45:36.500$ mechanisms that are fascinating here,

NOTE Confidence: 0.9461715533333333

 $00:45:36.500 \longrightarrow 00:45:37.823$ including neurotransmitter regulation,

NOTE Confidence: 0.946171553333333

 $00:45:37.823 \longrightarrow 00:45:40.469$ but there seems to be neuroprotective

NOTE Confidence: 0.946171553333333

 $00:45:40.469 \longrightarrow 00:45:42.510$ effects as well as reducing

NOTE Confidence: 0.9461715533333333

 $00:45:42.510 \longrightarrow 00:45:44.058$ neuroinflammation and oxidative stress.

NOTE Confidence: 0.946171553333333

00:45:44.060 --> 00:45:46.856 May help its circadian rhythm disturbances,

NOTE Confidence: 0.946171553333333

 $00:45:46.860 \longrightarrow 00:45:48.400$ a variety of other conditions

 $00:45:48.400 \longrightarrow 00:45:49.632$ like pain and anxiety.

NOTE Confidence: 0.946171553333333

 $00:45:49.640 \longrightarrow 00:45:52.240$ And then of course there may be some

NOTE Confidence: 0.946171553333333

 $00:45:52.240 \longrightarrow 00:45:54.310$ beneficial effects on the vascular system.

NOTE Confidence: 0.946171553333333

00:45:54.310 --> 00:45:56.067 In that first study that we published,

NOTE Confidence: 0.946171553333333

 $00:45:56.070 \longrightarrow 00:45:57.830$ it was 40 in patients

NOTE Confidence: 0.946171553333333

 $00:45:57.830 \longrightarrow 00:45:58.886$ with dementia agitation.

NOTE Confidence: 0.946171553333333

 $00:45:58.890 \longrightarrow 00:46:01.146$ We treated them with the mean dose of

NOTE Confidence: 0.946171553333333

 $00{:}46{:}01.146 \dashrightarrow 00{:}46{:}03.210$ TREN abanil up to 7 milligrams a day.

NOTE Confidence: 0.946171553333333

 $00{:}46{:}03.210 \longrightarrow 00{:}46{:}04.806$ So again we tried to get people

NOTE Confidence: 0.946171553333333

 $00:46:04.806 \longrightarrow 00:46:05.830$ to 10 milligrams a day,

NOTE Confidence: 0.946171553333333

 $00:46:05.830 \longrightarrow 00:46:08.105$ but on average they were on 7.

NOTE Confidence: 0.946171553333333

00:46:08.110 --> 00:46:10.770 The primary outcome measure was the PS.

NOTE Confidence: 0.946171553333333

 $00:46:10.770 \longrightarrow 00:46:12.226$ The Pittsburgh Agitation Scale,

NOTE Confidence: 0.946171553333333

 $00:46:12.226 \longrightarrow 00:46:14.410$ which is 4 items of physical

NOTE Confidence: 0.946171553333333

 $00:46:14.475 \longrightarrow 00:46:15.750$ and verbal agitation.

00:46:15.750 --> 00:46:17.706 And the side effects were sedation,

NOTE Confidence: 0.946171553333333

00:46:17.710 --> 00:46:20.370 delirium and again whether it was related,

NOTE Confidence: 0.946171553333333

 $00:46:20.370 \longrightarrow 00:46:21.066$ unrelated, unclear.

NOTE Confidence: 0.946171553333333

 $00:46:21.066 \longrightarrow 00:46:23.850$ So we use this data and my colleague

NOTE Confidence: 0.946171553333333

 $00{:}46{:}23.920 \dashrightarrow 00{:}46{:}25.750$ Paul Rosenberg and I collaborated

NOTE Confidence: 0.946171553333333

 $00:46:25.750 \longrightarrow 00:46:27.806$ together to write a a narrow

NOTE Confidence: 0.946171553333333

00:46:27.806 --> 00:46:29.564 one which got funded in 2016,

NOTE Confidence: 0.946171553333333

 $00:46:29.570 \longrightarrow 00:46:31.595$ and so we're we have a no cost extension.

NOTE Confidence: 0.946171553333333

 $00:46:31.600 \longrightarrow 00:46:33.880$ We're in now.

NOTE Confidence: 0.946171553333333

00:46:33.880 --> 00:46:36.056 And we're randomizing people

NOTE Confidence: 0.946171553333333

 $00{:}46{:}36.056 \dashrightarrow 00{:}46{:}37.956$ to 5 milligrams a day for week.

NOTE Confidence: 0.946171553333333

 $00{:}46{:}37.960 \dashrightarrow 00{:}46{:}40.453$ One of tRNA been all up to 10 milligrams

NOTE Confidence: 0.946171553333333

 $00:46:40.453 \longrightarrow 00:46:42.500$ a day. It's a three week trial.

NOTE Confidence: 0.9461715533333333

 $00:46:42.500 \longrightarrow 00:46:43.886$ We started inpatient.

NOTE Confidence: 0.946171553333333

 $00:46:43.886 \longrightarrow 00:46:47.120$ We've now expanded to long term care

NOTE Confidence: 0.946171553333333

 $00:46:47.207 \longrightarrow 00:46:49.757$ and outpatient settings as well.

00:46:49.760 --> 00:46:51.808 We're looking at Alzheimer's

NOTE Confidence: 0.946171553333333

 $00:46:51.808 \longrightarrow 00:46:53.856$ disease predominantly and severe

NOTE Confidence: 0.946171553333333

 $00:46:53.856 \longrightarrow 00:46:56.080$ agitation using the IPA criteria.

NOTE Confidence: 0.946171553333333

 $00:46:56.080 \longrightarrow 00:46:57.682$ And we do have rescue medicines

NOTE Confidence: 0.946171553333333

 $00:46:57.682 \longrightarrow 00:46:59.438$ and we're allowing people to stay

NOTE Confidence: 0.946171553333333

 $00{:}46{:}59.438 \dashrightarrow 00{:}47{:}00.718$ on their concomitant medications.

NOTE Confidence: 0.946171553333333

 $00:47:00.720 \longrightarrow 00:47:02.100$ And even with all of that,

NOTE Confidence: 0.946171553333333

 $00:47:02.100 \longrightarrow 00:47:03.972$ this is a very hard study to recruit for.

NOTE Confidence: 0.946171553333333

 $00{:}47{:}03.980 \dashrightarrow 00{:}47{:}06.900$ But I guess the good news is we are now

NOTE Confidence: 0.946171553333333

00:47:06.978 --> 00:47:10.200 almost 60 patients into our our goal of 80.

NOTE Confidence: 0.946171553333333

00:47:10.200 --> 00:47:12.936 You can see our demographics here,

NOTE Confidence: 0.946171553333333

00:47:12.940 --> 00:47:16.540 weighted towards around 78 years old,

NOTE Confidence: 0.946171553333333

 $00{:}47{:}16.540 \dashrightarrow 00{:}47{:}19.284$ about 65% women, which is pretty common.

NOTE Confidence: 0.946171553333333

00:47:19.290 --> 00:47:20.010 And like unfortunately,

NOTE Confidence: 0.946171553333333

 $00:47:20.010 \longrightarrow 00:47:21.450$ as I mentioned in the beginning,

 $00:47:21.450 \longrightarrow 00:47:23.258$ most of these studies,

NOTE Confidence: 0.946171553333333

 $00:47:23.258 \longrightarrow 00:47:25.240$ despite one of our sites being in

NOTE Confidence: 0.946171553333333

00:47:25.240 --> 00:47:27.120 Baltimore and one of our sites being

NOTE Confidence: 0.946171553333333

 $00:47:27.120 \longrightarrow 00:47:28.982$ in Miami where they have a very,

NOTE Confidence: 0.946171553333333

00:47:28.990 --> 00:47:31.415 very high Cuban American but

NOTE Confidence: 0.946171553333333

00:47:31.415 --> 00:47:32.870 essentially Latino population,

NOTE Confidence: 0.946171553333333

 $00:47:32.870 \longrightarrow 00:47:34.760$ we're still struggling with our

NOTE Confidence: 0.946171553333333

 $00:47:34.760 \longrightarrow 00:47:37.580$ demographics in terms of race and ethnicity.

NOTE Confidence: 0.946171553333333

 $00:47:37.580 \longrightarrow 00:47:39.974$ So hopefully we will have data on

NOTE Confidence: 0.946171553333333

 $00:47:39.974 \longrightarrow 00:47:42.188$ this within the next year or so.

NOTE Confidence: 0.946171553333333

 $00{:}47{:}42.190 \dashrightarrow 00{:}47{:}44.507$ Finally, on the cannabinoid realm of things,

NOTE Confidence: 0.946171553333333

00:47:44.510 --> 00:47:46.136 my colleague at McLean, Stacy Gruber,

NOTE Confidence: 0.946171553333333

 $00:47:46.140 \longrightarrow 00:47:48.114$ and I have been collaborating together

NOTE Confidence: 0.9461715533333333

00:47:48.114 --> 00:47:50.509 on a trial of cannabidiol CBD,

NOTE Confidence: 0.946171553333333

 $00:47:50.510 \longrightarrow 00:47:51.302$ mostly CBD.

NOTE Confidence: 0.946171553333333

 $00:47:51.302 \longrightarrow 00:47:54.074$ This is a plant based compound for

00:47:54.074 --> 00:47:56.229 anxiety in Alzheimer's disease,

NOTE Confidence: 0.946171553333333

 $00:47:56.230 \longrightarrow 00:47:58.942$ and again anxiolytic effects of this

NOTE Confidence: 0.946171553333333

00:47:58.942 --> 00:48:02.428 drug may be may be helpful specifically

NOTE Confidence: 0.946171553333333

00:48:02.428 --> 00:48:06.750 and may not induce psychosis like THC could,

NOTE Confidence: 0.946171553333333

 $00:48:06.750 \longrightarrow 00:48:09.240$ so this is a sublingual solution

NOTE Confidence: 0.946171553333333

 $00:48:09.240 \longrightarrow 00:48:10.900$ that is by weight,

NOTE Confidence: 0.946171553333333

 $00:48:10.900 \longrightarrow 00:48:12.781$ it's you know.

NOTE Confidence: 0.946171553333333

 $00:48:12.781 \longrightarrow 00:48:15.916$.3% THC so it's predominantly

NOTE Confidence: 0.888405007777778

00:48:15.920 --> 00:48:16.871 CBD, 45 milligrams,

NOTE Confidence: 0.888405007777778

00:48:16.871 --> 00:48:18.773 with only a milligram of THC,

NOTE Confidence: 0.888405007777778

 $00:48:18.780 \longrightarrow 00:48:19.818$ and so we're now in them,

NOTE Confidence: 0.888405007777778

 $00:48:19.820 \longrightarrow 00:48:21.318$ and this is only an open label.

NOTE Confidence: 0.888405007777778

 $00{:}48{:}21.320 \dashrightarrow 00{:}48{:}23.425$ Proof of concept Spiral Family

NOTE Confidence: 0.888405007777778

00:48:23.425 --> 00:48:24.688 Foundation funded study.

NOTE Confidence: 0.940106578571429

 $00:48:27.110 \longrightarrow 00:48:30.050$ So many reasons why not to use

 $00:48:30.050 \longrightarrow 00:48:31.379$ benzodiazepine's, the cholinesterase

NOTE Confidence: 0.940106578571429

 $00:48:31.379 \longrightarrow 00:48:34.037$ inhibitors and memantine do have some

NOTE Confidence: 0.940106578571429

00:48:34.037 --> 00:48:35.890 effects on anxiety and agitation.

NOTE Confidence: 0.940106578571429

 $00:48:35.890 \longrightarrow 00:48:38.674$ I'll just mention that the cholinesterase

NOTE Confidence: 0.940106578571429

 $00:48:38.674 \longrightarrow 00:48:40.530$ embitters may specifically address

NOTE Confidence: 0.940106578571429

00:48:40.595 --> 00:48:42.978 apathy and visual hallucinations and

NOTE Confidence: 0.940106578571429

 $00:48:42.978 \longrightarrow 00:48:45.546$ memantine may may also address agitation.

NOTE Confidence: 0.940106578571429

 $00:48:45.550 \longrightarrow 00:48:47.489$ But none of those effects are acute.

NOTE Confidence: 0.940106578571429

00:48:47.490 --> 00:48:49.626 You're not going to use these drugs and

NOTE Confidence: 0.940106578571429

 $00:48:49.626 \longrightarrow 00:48:51.800$ expect to see a response in a few days.

NOTE Confidence: 0.940106578571429

00:48:51.800 --> 00:48:53.936 So if you've got a patient who's mildly

NOTE Confidence: 0.940106578571429

00:48:53.936 --> 00:48:55.840 anxious and nonspecifically agitated,

NOTE Confidence: 0.940106578571429

 $00:48:55.840 \longrightarrow 00:48:57.816$ and by the way all of this presumes

NOTE Confidence: 0.940106578571429

00:48:57.816 --> 00:49:00.062 an adequate work up like we talked

NOTE Confidence: 0.940106578571429

 $00:49:00.062 \longrightarrow 00:49:01.418$ about and behavioral interventions.

NOTE Confidence: 0.940106578571429

 $00:49:01.420 \longrightarrow 00:49:03.700$ But if you've got a nonspecific

 $00:49:03.700 \longrightarrow 00:49:05.220$ agitation syndrome without aggression,

NOTE Confidence: 0.940106578571429

00:49:05.220 --> 00:49:06.676 without psychosis, without depression,

NOTE Confidence: 0.940106578571429

 $00{:}49{:}06.676 \dashrightarrow 00{:}49{:}10.092$ based on the site at trial, you might.

NOTE Confidence: 0.940106578571429

00:49:10.092 --> 00:49:12.276 You might consider SSRI's, or,

NOTE Confidence: 0.940106578571429

00:49:12.276 --> 00:49:13.452 if they're not sleeping or eating well,

NOTE Confidence: 0.940106578571429

00:49:13.460 --> 00:49:15.836 mirtazapine, or if it's only intermittent,

NOTE Confidence: 0.940106578571429

 $00:49:15.840 \longrightarrow 00:49:18.040$ you might consider trazadone.

NOTE Confidence: 0.940106578571429

 $00:49:18.040 \longrightarrow 00:49:19.342$ If, on the other hand,

NOTE Confidence: 0.940106578571429

 $00{:}49{:}19.342 \dashrightarrow 00{:}49{:}21.060$ there on the other side of the spectrum,

NOTE Confidence: 0.940106578571429

 $00:49:21.060 \longrightarrow 00:49:23.000$ they're physically aggressive and agitated.

NOTE Confidence: 0.940106578571429

 $00:49:23.000 \longrightarrow 00:49:24.212$ And they have psychosis.

NOTE Confidence: 0.940106578571429

 $00:49:24.212 \longrightarrow 00:49:26.030$ That's where the experts would agree

NOTE Confidence: 0.940106578571429

 $00{:}49{:}26.086 \dashrightarrow 00{:}49{:}27.218$ that the atypical antipsychotics

NOTE Confidence: 0.940106578571429

 $00{:}49{:}27.218 \dashrightarrow 00{:}49{:}29.470$ are a good first line of treatment.

NOTE Confidence: 0.940106578571429

 $00:49:29.470 \longrightarrow 00:49:31.095$ If they are aggressive and

 $00:49:31.095 \longrightarrow 00:49:32.070$ agitated with depression,

NOTE Confidence: 0.940106578571429

 $00{:}49{:}32.070 \dashrightarrow 00{:}49{:}33.790$ again a gitated and aggressive

NOTE Confidence: 0.940106578571429

 $00:49:33.790 \longrightarrow 00:49:34.650$ with depression,

NOTE Confidence: 0.940106578571429

 $00:49:34.650 \longrightarrow 00:49:36.060$ that's where you may want to

NOTE Confidence: 0.940106578571429

 $00:49:36.060 \longrightarrow 00:49:37.470$ start with S rise or rise,

NOTE Confidence: 0.940106578571429

 $00:49:37.470 \longrightarrow 00:49:38.514$ or even mirtagapine.

NOTE Confidence: 0.940106578571429

 $00:49:38.514 \longrightarrow 00:49:40.602$ But it's this fourth group that

NOTE Confidence: 0.940106578571429

 $00:49:40.602 \longrightarrow 00:49:42.490$ really is the challenging group.

NOTE Confidence: 0.940106578571429

 $00{:}49{:}42.490 \dashrightarrow 00{:}49{:}44.037$ This is the group that I think

NOTE Confidence: 0.940106578571429

 $00:49:44.037 \longrightarrow 00:49:45.455$ winds up in hospitals difficult

NOTE Confidence: 0.940106578571429

 $00:49:45.455 \longrightarrow 00:49:47.190$ to treat in nursing homes.

NOTE Confidence: 0.940106578571429

00:49:47.190 --> 00:49:48.242 Why family members burnout?

NOTE Confidence: 0.940106578571429

 $00{:}49{:}48.242 \dashrightarrow 00{:}49{:}49.557$ It's when you've got aggression

NOTE Confidence: 0.940106578571429

 $00:49:49.557 \longrightarrow 00:49:51.304$ without psychosis, we often will not.

NOTE Confidence: 0.940106578571429

 $00:49:51.304 \longrightarrow 00:49:53.770$ We don't really have a first line treatment.

NOTE Confidence: 0.940106578571429

 $00:49:53.770 \longrightarrow 00:49:55.882$ This is where we often use

 $00:49:55.882 \longrightarrow 00:49:56.586$ combination therapies,

NOTE Confidence: 0.940106578571429

 $00:49:56.590 \longrightarrow 00:49:59.210$ which may include anticonvulsants

NOTE Confidence: 0.940106578571429

 $00:49:59.210 \longrightarrow 00:50:01.175$ in atypical antipsychotics.

NOTE Confidence: 0.940106578571429

00:50:01.180 --> 00:50:04.724 Alright, so the last part of this talk.

NOTE Confidence: 0.940106578571429

00:50:04.730 --> 00:50:06.946 Before we do Q&A is I I wanna

NOTE Confidence: 0.940106578571429

 $00:50:06.946 \longrightarrow 00:50:09.806$ bring up the concept that we will

NOTE Confidence: 0.940106578571429

00:50:09.806 --> 00:50:11.590 never have enough specialists,

NOTE Confidence: 0.940106578571429

00:50:11.590 --> 00:50:13.150 not just in geriatric psychiatry,

NOTE Confidence: 0.940106578571429

 $00:50:13.150 \longrightarrow 00:50:15.490$ but in any psychiatry subspecialty

NOTE Confidence: 0.940106578571429

00:50:15.490 --> 00:50:16.870 to treat the mental health

NOTE Confidence: 0.940106578571429

 $00:50:16.870 \longrightarrow 00:50:17.974$ challenges of our population.

NOTE Confidence: 0.940106578571429

 $00:50:17.980 \longrightarrow 00:50:19.618$ And we all know this in our field and

NOTE Confidence: 0.940106578571429

 $00:50:19.618 \longrightarrow 00:50:21.176$ we're seeing it now highlighted by the

NOTE Confidence: 0.940106578571429

 $00{:}50{:}21.176 --> 00{:}50{:}22.751$ pandemic in ways we couldn't have even

NOTE Confidence: 0.940106578571429

 $00:50:22.751 \longrightarrow 00:50:24.662$ imagined a few years ago in some ways.

 $00:50:24.662 \longrightarrow 00:50:27.406$ But some of what's driving the potential

NOTE Confidence: 0.940106578571429

 $00:50:27.406 \longrightarrow 00:50:30.059$ for optimism is really a transformation,

NOTE Confidence: 0.940106578571429

 $00:50:30.060 \longrightarrow 00:50:31.800$ and the way we organize health

NOTE Confidence: 0.940106578571429

 $00:50:31.800 \longrightarrow 00:50:34.106$ care and the way we pay for health

NOTE Confidence: 0.940106578571429

00:50:34.106 --> 00:50:36.298 care and so back in the old days,

NOTE Confidence: 0.940106578571429

 $00:50:36.300 \longrightarrow 00:50:37.714$ which is not that old and frankly,

NOTE Confidence: 0.940106578571429

00:50:37.720 --> 00:50:39.200 still dominates in many parts

NOTE Confidence: 0.940106578571429

 $00:50:39.200 \longrightarrow 00:50:40.680$ of the country we built,

NOTE Confidence: 0.940106578571429

 $00:50:40.680 \longrightarrow 00:50:43.160$ care around institutional settings,

NOTE Confidence: 0.940106578571429

 $00:50:43.160 \longrightarrow 00:50:45.008$ payments incentivized, more care.

NOTE Confidence: 0.940106578571429

 $00{:}50{:}45.008 \dashrightarrow 00{:}50{:}47.440$ This is very true in our specialty arenas.

NOTE Confidence: 0.940106578571429

00:50:47.440 --> 00:50:48.400 You know, the more you do,

NOTE Confidence: 0.940106578571429

 $00:50:48.400 \longrightarrow 00:50:49.894$ the more you build, the more money you make.

NOTE Confidence: 0.941658072272727

 $00:50:51.920 \longrightarrow 00:50:53.828$ And again, this is often driven

NOTE Confidence: 0.941658072272727

 $00:50:53.828 \longrightarrow 00:50:55.100$ by procedural based specialties

NOTE Confidence: 0.941658072272727

 $00:50:55.154 \longrightarrow 00:50:57.170$ and in our old way of doing things

 $00:50:57.170 \longrightarrow 00:50:58.639$ and yesterday's healthcare system.

NOTE Confidence: 0.941658072272727

 $00{:}50{:}58.640 \dashrightarrow 00{:}51{:}00.315$ Traditional fee for service Health care

NOTE Confidence: 0.941658072272727

 $00:51:00.315 \longrightarrow 00:51:03.297$ is really what this is is that we were

NOTE Confidence: 0.941658072272727

 $00:51:03.297 \longrightarrow 00:51:04.862$ responsible for getting people better

NOTE Confidence: 0.941658072272727

 $00:51:04.862 \longrightarrow 00:51:07.504$ now is immediate outcomes and we were

NOTE Confidence: 0.941658072272727

 $00{:}51{:}07.504 \dashrightarrow 00{:}51{:}09.271$ grudgingly accepting and increasing costs

NOTE Confidence: 0.941658072272727

 $00:51:09.271 \longrightarrow 00:51:11.279$ which we no longer will do well with.

NOTE Confidence: 0.941658072272727

 $00:51:11.280 \longrightarrow 00:51:13.709$ The Affordable Care Act of 2010 and

NOTE Confidence: 0.941658072272727

 $00{:}51{:}13.709 \dashrightarrow 00{:}51{:}15.532$ and population based approaches which

NOTE Confidence: 0.941658072272727

 $00{:}51{:}15.532 \dashrightarrow 00{:}51{:}18.045$ have been taking hold in certain parts

NOTE Confidence: 0.941658072272727

00:51:18.045 --> 00:51:20.452 of the country with risk contracts

NOTE Confidence: 0.941658072272727

 $00:51:20.452 \longrightarrow 00:51:22.432$ where we're basically now being.

NOTE Confidence: 0.941658072272727

 $00:51:22.440 \longrightarrow 00:51:25.156$ Asked to build care around a patient,

NOTE Confidence: 0.941658072272727

00:51:25.160 --> 00:51:26.620 not around an institution,

NOTE Confidence: 0.941658072272727

 $00:51:26.620 \longrightarrow 00:51:28.445$ and instead of just trying

00:51:28.445 --> 00:51:30.310 to incentivize more care,

NOTE Confidence: 0.941658072272727

 $00{:}51{:}30.310 \to 00{:}51{:}32.812$ we're incentivizing better care so that

NOTE Confidence: 0.941658072272727

 $00:51:32.812 \longrightarrow 00:51:35.339$ the reimbursement isn't just about volume,

NOTE Confidence: 0.941658072272727

 $00:51:35.340 \longrightarrow 00:51:36.222$ it's about value.

NOTE Confidence: 0.941658072272727

00:51:36.222 --> 00:51:38.280 It's about quality and addition to just,

NOTE Confidence: 0.941658072272727

 $00:51:38.280 \longrightarrow 00:51:39.138$ you know, doing,

NOTE Confidence: 0.941658072272727

 $00:51:39.138 \longrightarrow 00:51:41.080$ doing what you need to do and

NOTE Confidence: 0.941658072272727

 $00:51:41.080 \longrightarrow 00:51:42.180$ and we're not just responsible

NOTE Confidence: 0.941658072272727

 $00:51:42.180 \longrightarrow 00:51:43.600$ for how someone is doing today,

NOTE Confidence: 0.941658072272727

 $00:51:43.600 \longrightarrow 00:51:45.416$ but also over a longer period of time.

NOTE Confidence: 0.941658072272727

 $00{:}51{:}45.420 --> 00{:}51{:}45.671 \ \mathrm{And},$

NOTE Confidence: 0.941658072272727

 $00{:}51{:}45.671 \dashrightarrow 00{:}51{:}47.428$ and we're doing this in part because

NOTE Confidence: 0.941658072272727

00:51:47.428 --> 00:51:49.517 we just can't sustain the cost burden.

NOTE Confidence: 0.941658072272727

 $00{:}51{:}49.520 \dashrightarrow 00{:}51{:}53.280$ These are the principles of value based care.

NOTE Confidence: 0.941658072272727

 $00:51:53.280 \longrightarrow 00:51:55.037$ And the triple aim of health care

NOTE Confidence: 0.941658072272727

00:51:55.037 --> 00:51:56.500 that Don Berwick talked about,

00:51:56.500 --> 00:51:58.546 which is trying to improve quality

NOTE Confidence: 0.941658072272727

 $00:51:58.546 \longrightarrow 00:52:00.328$ of care patient outcomes while

NOTE Confidence: 0.941658072272727

 $00:52:00.328 \longrightarrow 00:52:02.446$ reducing overall costs and a very

NOTE Confidence: 0.941658072272727

00:52:02.446 --> 00:52:04.258 important fourth part of the game,

NOTE Confidence: 0.941658072272727

 $00:52:04.260 \longrightarrow 00:52:05.460$ which is often not mentioned,

NOTE Confidence: 0.941658072272727

00:52:05.460 --> 00:52:07.326 which is our own quality of life, right?

NOTE Confidence: 0.941658072272727

 $00:52:07.326 \longrightarrow 00:52:08.656$ What about the health care?

NOTE Confidence: 0.941658072272727 00:52:08.660 --> 00:52:09.142 I mean,

NOTE Confidence: 0.941658072272727

 $00:52:09.142 \longrightarrow 00:52:10.588$ the mental health well being and

NOTE Confidence: 0.941658072272727

 $00{:}52{:}10.588 \dashrightarrow 00{:}52{:}12.195$ the burnout in the health care

NOTE Confidence: 0.941658072272727

00:52:12.195 --> 00:52:13.535 providers which we're now seeing.

NOTE Confidence: 0.941658072272727

 $00:52:13.540 \longrightarrow 00:52:17.070$ Of course becoming tremendously challenged.

NOTE Confidence: 0.941658072272727

 $00:52:17.070 \longrightarrow 00:52:19.766$ And for those of you in geriatric psychiatry,

NOTE Confidence: 0.941658072272727

 $00{:}52{:}19.770 \longrightarrow 00{:}52{:}22.497$ I want you to know that there's a huge

NOTE Confidence: 0.941658072272727

 $00:52:22.497 \longrightarrow 00:52:24.450$ opportunity for us in this population.

 $00:52:24.450 \longrightarrow 00:52:25.449$ Health based landscape.

NOTE Confidence: 0.941658072272727

00:52:25.449 --> 00:52:27.447 And I would argue it's true

NOTE Confidence: 0.941658072272727

 $00:52:27.447 \longrightarrow 00:52:28.929$ for all of psychiatry.

NOTE Confidence: 0.941658072272727

 $00:52:28.930 \longrightarrow 00:52:31.530$ If anything value based care,

NOTE Confidence: 0.941658072272727

 $00:52:31.530 \longrightarrow 00:52:33.490$ I think has an opportunity to elevate

NOTE Confidence: 0.941658072272727

 $00:52:33.490 \longrightarrow 00:52:35.785$ psychiatry and to put us in a real

NOTE Confidence: 0.941658072272727

 $00:52:35.785 \longrightarrow 00:52:37.185$ leadership role in healthcare systems.

NOTE Confidence: 0.941658072272727

 $00:52:37.190 \longrightarrow 00:52:39.640$ Because if you really want to improve

NOTE Confidence: 0.941658072272727

 $00{:}52{:}39.640 \dashrightarrow 00{:}52{:}41.890$ quality of life and reduce costs,

NOTE Confidence: 0.941658072272727 $00:52:41.890 \longrightarrow 00:52:42.802$ you got to, NOTE Confidence: 0.941658072272727

 $00{:}52{:}42.802 \dashrightarrow 00{:}52{:}44.930$ you got to address mental health care

NOTE Confidence: 0.941658072272727

 $00:52:44.999 \longrightarrow 00:52:47.295$ and luckily we've got two decades of.

NOTE Confidence: 0.941658072272727

 $00:52:47.300 \longrightarrow 00:52:48.888$ Data suggesting that collaborative

NOTE Confidence: 0.941658072272727

 $00:52:48.888 \longrightarrow 00:52:50.873$ care approaches for depression in

NOTE Confidence: 0.941658072272727

 $00:52:50.873 \longrightarrow 00:52:52.678$ primary care incredibly effective,

NOTE Confidence: 0.941658072272727

 $00{:}52{:}52.680 \rightarrow 00{:}52{:}54.955$ and we're now starting to see similar

 $00:52:54.955 \longrightarrow 00:52:57.140$ data in terms of Alzheimer's disease

NOTE Confidence: 0.941658072272727

 $00:52:57.140 \longrightarrow 00:52:59.432$ as one model for how geriatric

NOTE Confidence: 0.941658072272727

00:52:59.432 --> 00:53:01.567 mental health can be evolved or

NOTE Confidence: 0.941658072272727

00:53:01.567 --> 00:53:03.832 involved in a meaningful way in

NOTE Confidence: 0.941658072272727

 $00:53:03.832 \longrightarrow 00:53:06.120$ in this evolving landscape.

NOTE Confidence: 0.941658072272727

 $00:53:06.120 \longrightarrow 00:53:07.578$ This is a very busy slide,

NOTE Confidence: 0.941658072272727

 $00:53:07.580 \longrightarrow 00:53:09.936$ but I want to let you know that we're not

NOTE Confidence: 0.941658072272727

 $00:53:09.936 \longrightarrow 00:53:11.560$ the only ones that are doing this work.

NOTE Confidence: 0.941658072272727

 $00{:}53{:}11.560 \dashrightarrow 00{:}53{:}13.816$ In mass General Brigham I would.

NOTE Confidence: 0.941658072272727

 $00{:}53{:}13.820 \longrightarrow 00{:}53{:}15.227$ I would point to two groups that

NOTE Confidence: 0.941658072272727

 $00:53:15.227 \longrightarrow 00:53:16.298$ have really three groups that

NOTE Confidence: 0.941658072272727

 $00:53:16.298 \longrightarrow 00:53:17.564$ have really led the way there.

NOTE Confidence: 0.941658072272727

 $00{:}53{:}17.570 \dashrightarrow 00{:}53{:}18.893$ I would say anyone on this slide

NOTE Confidence: 0.941658072272727

 $00{:}53{:}18.893 \dashrightarrow 00{:}53{:}20.140$ has really been leading the way,

NOTE Confidence: 0.941658072272727

 $00:53:20.140 \longrightarrow 00:53:23.736$ but David Rubin at UCLA geriatrician with

00:53:23.736 --> 00:53:26.226 his ADC program Alzheimer's Dementia

NOTE Confidence: 0.941658072272727

 $00:53:26.226 \longrightarrow 00:53:29.006$ Care and and the aging Braid Care program.

NOTE Confidence: 0.941658072272727

00:53:29.010 --> 00:53:30.690 Chris Callahan and Melos Boustani,

NOTE Confidence: 0.941658072272727

 $00:53:30.690 \longrightarrow 00:53:34.686$ all of these people are geriatricians

NOTE Confidence: 0.941658072272727

00:53:34.690 --> 00:53:36.230 and linking in with geriatric

NOTE Confidence: 0.941658072272727

 $00:53:36.230 \longrightarrow 00:53:37.462$ psychiatry is is they,

NOTE Confidence: 0.8573391675

 $00:53:37.470 \longrightarrow 00:53:38.946$ they realize, is critical.

NOTE Confidence: 0.8573391675

 $00:53:38.946 \longrightarrow 00:53:41.160$ UCSF developed the care ecosystem model

NOTE Confidence: 0.8573391675

 $00{:}53{:}41.222 \dashrightarrow 00{:}53{:}43.070$ in their memory and aging center,

NOTE Confidence: 0.8573391675

 $00{:}53{:}43.070 \dashrightarrow 00{:}53{:}44.169$ and then there are others as well.

NOTE Confidence: 0.8573391675

 $00:53:44.170 \longrightarrow 00:53:46.098$ So there are a number of these programs

NOTE Confidence: 0.8573391675

00:53:46.098 --> 00:53:48.109 that mind at home program at at Hopkins,

NOTE Confidence: 0.8573391675

00:53:48.110 --> 00:53:50.564 for example, are trying to improve

NOTE Confidence: 0.8573391675

 $00:53:50.564 \longrightarrow 00:53:52.200$ clinical outcomes like behavioral

NOTE Confidence: 0.8573391675

 $00:53:52.266 \longrightarrow 00:53:54.341$ symptoms that dementia like caregiver

NOTE Confidence: 0.8573391675

 $00:53:54.341 \longrightarrow 00:53:56.853$ stress while also reducing cost and

 $00:53:56.853 \longrightarrow 00:53:58.708$ doing it without the traditional,

NOTE Confidence: 0.8573391675

 $00:53:58.710 \longrightarrow 00:54:01.307$ you know, 11 specialist doctor and one

NOTE Confidence: 0.8573391675

00:54:01.307 --> 00:54:03.727 patient and family in a room together.

NOTE Confidence: 0.8573391675

 $00:54:03.730 \longrightarrow 00:54:06.646$ So about three years ago we four years ago.

NOTE Confidence: 0.8573391675

 $00:54:06.650 \longrightarrow 00:54:08.274$ Now we put together a bunch of experts

NOTE Confidence: 0.8573391675

00:54:08.274 --> 00:54:10.008 across our health care system and we said,

NOTE Confidence: 0.8573391675

00:54:10.010 --> 00:54:11.738 well, if we could do something

NOTE Confidence: 0.8573391675

00:54:11.738 --> 00:54:12.890 for dimension primary care,

NOTE Confidence: 0.8573391675

00:54:12.890 --> 00:54:13.950 what would it look like?

NOTE Confidence: 0.8573391675

 $00{:}54{:}13.950 \dashrightarrow 00{:}54{:}15.264$ How would we assess people who

NOTE Confidence: 0.8573391675

 $00:54:15.264 \longrightarrow 00:54:16.670$ would be the target population?

NOTE Confidence: 0.8573391675

00:54:16.670 --> 00:54:17.876 What would the model look like?

NOTE Confidence: 0.8573391675

 $00:54:17.880 \longrightarrow 00:54:20.430$ We eventually decided to implement

NOTE Confidence: 0.8573391675

00:54:20.430 --> 00:54:22.470 David Rubins UCLA model,

NOTE Confidence: 0.8573391675

 $00:54:22.470 \longrightarrow 00:54:23.695$ which is seen here on the right

 $00:54:23.695 \longrightarrow 00:54:24.510$ side of the slide,

NOTE Confidence: 0.8573391675

 $00:54:24.510 \longrightarrow 00:54:26.616$ which is pairing a dementia care

NOTE Confidence: 0.8573391675

00:54:26.616 --> 00:54:29.238 manager who's a social worker with a

NOTE Confidence: 0.8573391675

 $00:54:29.238 \longrightarrow 00:54:31.536$ geriatric NP and a supervising physician

NOTE Confidence: 0.8573391675

 $00:54:31.540 \longrightarrow 00:54:33.030$ could be a geriatric psychiatrist.

NOTE Confidence: 0.8573391675

 $00:54:33.030 \longrightarrow 00:54:34.454$ Could be a geriatrician.

NOTE Confidence: 0.8573391675

 $00:54:34.454 \longrightarrow 00:54:36.950$ But someone who's expert in dementia care?

NOTE Confidence: 0.8573391675

 $00:54:36.950 \longrightarrow 00:54:38.570$ The patient and the caregiver

NOTE Confidence: 0.8573391675

 $00:54:38.570 \longrightarrow 00:54:40.190$ in the middle of this.

NOTE Confidence: 0.8573391675

00:54:40.190 --> 00:54:42.380 Diagram and LinkedIn very closely

NOTE Confidence: 0.8573391675

 $00:54:42.380 \longrightarrow 00:54:44.966$ with the primary care doc and

NOTE Confidence: 0.8573391675

00:54:44.966 --> 00:54:46.530 using all available technology,

NOTE Confidence: 0.8573391675

 $00:54:46.530 \longrightarrow 00:54:48.830$ including electronic records for developing

NOTE Confidence: 0.8573391675

 $00:54:48.830 \longrightarrow 00:54:51.080$ registries and following people overtime.

NOTE Confidence: 0.8573391675

00:54:51.080 --> 00:54:53.208 Our goal was to develop this high

NOTE Confidence: 0.8573391675

 $00:54:53.208 \longrightarrow 00:54:55.111$ quality care program for individuals

 $00:54:55.111 \longrightarrow 00:54:56.979$ with cognitive impairment by

NOTE Confidence: 0.8573391675

 $00:54:56.979 \longrightarrow 00:54:58.847$ facilitating evidence based assessment

NOTE Confidence: 0.8573391675

 $00{:}54{:}58.906 \to 00{:}55{:}01.066$ and treatment in primary care over

NOTE Confidence: 0.8573391675

 $00:55:01.066 \longrightarrow 00:55:03.120$ the entire illness trajectory and for

NOTE Confidence: 0.8573391675

 $00:55:03.120 \longrightarrow 00:55:04.950$ both the patient and their caregiver.

NOTE Confidence: 0.8573391675

 $00:55:04.950 \longrightarrow 00:55:07.455$ So we targeted individuals who

NOTE Confidence: 0.8573391675

 $00:55:07.455 \longrightarrow 00:55:10.390$ were members of our Medicare ACO.

NOTE Confidence: 0.8573391675

 $00:55:10.390 \longrightarrow 00:55:12.721$ And had a known diagnosis of dementia

NOTE Confidence: 0.8573391675

00:55:12.721 --> 00:55:15.430 based on codes in the EHR or were

NOTE Confidence: 0.8573391675

 $00:55:15.430 \longrightarrow 00:55:17.530$ suspected to have cognitive impairment

NOTE Confidence: 0.8573391675

 $00:55:17.530 \longrightarrow 00:55:20.728$ based on the clinician or family concern.

NOTE Confidence: 0.8573391675

 $00:55:20.730 \longrightarrow 00:55:22.564$ And we have a whole series of

NOTE Confidence: 0.8573391675

 $00{:}55{:}22.564 \dashrightarrow 00{:}55{:}24.335$ services that we utilize and now

NOTE Confidence: 0.8573391675

 $00:55:24.335 \longrightarrow 00:55:25.870$ that we've been doing this,

NOTE Confidence: 0.8573391675

00:55:25.870 --> 00:55:28.390 we launched it timing wise about a month

 $00:55:28.390 \longrightarrow 00:55:30.639$ before the pandemic really took off.

NOTE Confidence: 0.8573391675

 $00{:}55{:}30.640 \dashrightarrow 00{:}55{:}33.120$ But this is essentially an

NOTE Confidence: 0.8573391675

00:55:33.120 --> 00:55:35.104 embedded specialty care model.

NOTE Confidence: 0.8573391675

00:55:35.110 --> 00:55:37.847 It's not very scalable, it's too costly.

NOTE Confidence: 0.8573391675

00:55:37.850 --> 00:55:39.265 The outcomes that we're looking

NOTE Confidence: 0.8573391675

00:55:39.265 --> 00:55:41.072 at now are promising David Rubins

NOTE Confidence: 0.8573391675

00:55:41.072 --> 00:55:42.436 outcomes are very promising,

NOTE Confidence: 0.8573391675

00:55:42.440 --> 00:55:44.408 but to scale it you actually have to

NOTE Confidence: 0.8573391675

 $00{:}55{:}44.408 \dashrightarrow 00{:}55{:}46.820$ do a lot of fee for service billing,

NOTE Confidence: 0.8573391675

00:55:46.820 --> 00:55:49.730 using care management and E&M codes.

NOTE Confidence: 0.8573391675

 $00:55:49.730 \longrightarrow 00:55:51.011$ Which is fine,

NOTE Confidence: 0.8573391675

00:55:51.011 --> 00:55:55.133 but it's not going to be paid for alone

NOTE Confidence: 0.8573391675

 $00:55:55.133 \longrightarrow 00:55:58.752$ by reducing the overall costs of care.

NOTE Confidence: 0.8573391675

 $00:55:58.760 \longrightarrow 00:56:00.839$ So we then looked into other models

NOTE Confidence: 0.8573391675

 $00{:}56{:}00.839 \dashrightarrow 00{:}56{:}03.120$ and this is the UCSF model and we

NOTE Confidence: 0.8573391675

00:56:03.120 --> 00:56:05.398 got a grant from the NIH impact

 $00:56:05.398 \longrightarrow 00:56:07.166$ Collaboratory couple years ago,

NOTE Confidence: 0.8573391675

 $00{:}56{:}07.170 \dashrightarrow 00{:}56{:}11.644$ and the idea here was to take the care

NOTE Confidence: 0.8573391675

00:56:11.644 --> 00:56:13.729 ecosystem model developed at UCSF,

NOTE Confidence: 0.8573391675

00:56:13.730 --> 00:56:15.386 which is originally implemented

NOTE Confidence: 0.8573391675

 $00{:}56{:}15.386 \dashrightarrow 00{:}56{:}18.364$ not with a nurse and social worker

NOTE Confidence: 0.8573391675

 $00:56:18.364 \longrightarrow 00:56:20.048$ and and physician team,

NOTE Confidence: 0.8573391675

 $00:56:20.050 \longrightarrow 00:56:22.126$ but with a health care navigator

NOTE Confidence: 0.8573391675

00:56:22.126 --> 00:56:24.421 who's a non clinician who gets

NOTE Confidence: 0.8573391675

 $00:56:24.421 \longrightarrow 00:56:26.526$ trained in basic dementia assessment.

NOTE Confidence: 0.8573391675

 $00{:}56{:}26.530 \dashrightarrow 00{:}56{:}28.138$ Two tools, one for the patient.

NOTE Confidence: 0.8573391675

 $00:56:28.140 \longrightarrow 00:56:30.486$ For the caregiver and seven protocols

NOTE Confidence: 0.8573391675

 $00{:}56{:}30.486 \dashrightarrow 00{:}56{:}33.319$ that address the gold standard dementia.

NOTE Confidence: 0.8573391675

 $00:56:33.320 \longrightarrow 00:56:34.984$ 101 principles like medication

NOTE Confidence: 0.8573391675

 $00:56:34.984 \longrightarrow 00:56:36.232$ deprescribing and reducing

NOTE Confidence: 0.8573391675

 $00:56:36.232 \longrightarrow 00:56:37.480$ behavioral symptoms of

 $00:56:37.538 \longrightarrow 00:56:39.358$ dementia and supporting caregivers,

NOTE Confidence: 0.903242829285714

 $00:56:39.360 \longrightarrow 00:56:40.900$ and connecting people to

NOTE Confidence: 0.903242829285714

 $00:56:40.900 \longrightarrow 00:56:42.440$ resources and so forth.

NOTE Confidence: 0.903242829285714

 $00:56:42.440 \longrightarrow 00:56:43.628$ And so we decided.

NOTE Confidence: 0.903242829285714

00:56:43.628 --> 00:56:45.113 Instead of building a new

NOTE Confidence: 0.903242829285714

00:56:45.113 --> 00:56:46.760 siloed program in our system,

NOTE Confidence: 0.903242829285714

 $00{:}56{:}46.760 \dashrightarrow 00{:}56{:}48.818$ we would take nurses who were part

NOTE Confidence: 0.903242829285714

00:56:48.818 --> 00:56:51.112 of our high risk care management

NOTE Confidence: 0.903242829285714

 $00:56:51.112 \longrightarrow 00:56:53.072$ program and we're following like

NOTE Confidence: 0.903242829285714

00:56:53.072 --> 00:56:54.962 180 patients on their caseload

NOTE Confidence: 0.903242829285714

 $00{:}56{:}54.962 \dashrightarrow 00{:}56{:}57.338$ and we would train 20 of you know,

NOTE Confidence: 0.903242829285714

 $00:56:57.340 \longrightarrow 00:56:58.978$ train 15 nurses in our first

NOTE Confidence: 0.903242829285714

 $00{:}56{:}58.978 \dashrightarrow 00{:}57{:}01.158$ wave and 15 in our second wave.

NOTE Confidence: 0.903242829285714

 $00:57:01.160 \longrightarrow 00:57:03.323$ But train them to manage in this

NOTE Confidence: 0.903242829285714

 $00:57:03.323 \longrightarrow 00:57:05.100$ evidence based way their dementia

NOTE Confidence: 0.903242829285714

00:57:05.100 --> 00:57:07.837 population on their care on their caseload,

 $00:57:07.840 \longrightarrow 00:57:09.702$ so maybe 10 or 15 of their

NOTE Confidence: 0.903242829285714

 $00:57:09.702 \longrightarrow 00:57:11.160$ 180 would have dementia,

NOTE Confidence: 0.903242829285714

 $00:57:11.160 \longrightarrow 00:57:13.328$ so we're now in the midst of wave

NOTE Confidence: 0.903242829285714

 $00:57:13.328 \longrightarrow 00:57:15.827$ two and I would say my lesson

NOTE Confidence: 0.903242829285714

 $00{:}57{:}15.827 \dashrightarrow 00{:}57{:}17.712$ learned from this is implementation

NOTE Confidence: 0.903242829285714

 $00:57:17.784 \longrightarrow 00:57:19.440$ is very very challenging.

NOTE Confidence: 0.903242829285714

 $00:57:19.440 \longrightarrow 00:57:21.450$ Nurses are overwhelmed with 180 very

NOTE Confidence: 0.903242829285714

 $00{:}57{:}21.450 \to 00{:}57{:}23.191$ complex patients and even though

NOTE Confidence: 0.903242829285714

00:57:23.191 --> 00:57:24.916 they knew these dementia patients

NOTE Confidence: 0.903242829285714

 $00:57:24.916 \longrightarrow 00:57:26.899$ had been following them for years,

NOTE Confidence: 0.903242829285714

 $00:57:26.900 \longrightarrow 00:57:28.475$ we then asked them to do more

NOTE Confidence: 0.903242829285714

 $00:57:28.475 \longrightarrow 00:57:29.800$ than they would normally do,

NOTE Confidence: 0.903242829285714

 $00{:}57{:}29.800 \dashrightarrow 00{:}57{:}31.996$ even though it's gold standard care.

NOTE Confidence: 0.903242829285714

 $00:57:32.000 \longrightarrow 00:57:33.610$ And they got quickly overwhelmed,

NOTE Confidence: 0.903242829285714

00:57:33.610 --> 00:57:35.619 so we're now trying to figure out

00:57:35.619 --> 00:57:37.440 ways to modify their caseload.

NOTE Confidence: 0.903242829285714

 $00{:}57{:}37.440 \dashrightarrow 00{:}57{:}39.012$ So they can give these patients

NOTE Confidence: 0.903242829285714

00:57:39.012 --> 00:57:40.060 and caregivers the attention

NOTE Confidence: 0.903242829285714

 $00:57:40.108 \longrightarrow 00:57:41.068$ they need and deserve.

NOTE Confidence: 0.903242829285714

 $00:57:41.070 \longrightarrow 00:57:42.890$ But I do think and we'll be

NOTE Confidence: 0.903242829285714

 $00:57:42.890 \longrightarrow 00:57:44.582$ looking at our data soon it.

NOTE Confidence: 0.903242829285714

00:57:44.582 --> 00:57:46.838 I think this is a very interesting model,

NOTE Confidence: 0.903242829285714

 $00:57:46.840 \longrightarrow 00:57:48.935$ though that could potentially be

NOTE Confidence: 0.903242829285714

 $00{:}57{:}48.935 \dashrightarrow 00{:}57{:}51.030$ scaled along with other resources.

NOTE Confidence: 0.903242829285714

 $00:57:51.030 \longrightarrow 00:57:53.850$ So just in summary.

NOTE Confidence: 0.903242829285714

 $00{:}57{:}53.850 \dashrightarrow 00{:}57{:}55.150$ The behavioral symptoms that

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 $00:57:55.150 \longrightarrow 00:57:56.775$ dementia part of this talk.

NOTE Confidence: 0.903242829285714

 $00:57:56.780 \longrightarrow 00:57:58.000$ It's really important to remember

NOTE Confidence: 0.903242829285714

 $00:57:58.000 \longrightarrow 00:57:58.976$ that these are symptoms.

NOTE Confidence: 0.903242829285714

00:57:58.980 --> 00:57:59.781 They're not diagnosis,

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 $00:57:59.781 \longrightarrow 00:58:02.375$ they beg a need then to dig deep and

00:58:02.375 --> 00:58:04.379 find the underlying cause that's driving.

NOTE Confidence: 0.903242829285714

 $00:58:04.380 \longrightarrow 00:58:05.640$ The behavioral problem will

NOTE Confidence: 0.903242829285714

00:58:05.640 --> 00:58:07.215 always intervene no matter what.

NOTE Confidence: 0.903242829285714

00:58:07.220 --> 00:58:08.716 With these non pharmacological

NOTE Confidence: 0.903242829285714

 $00:58:08.716 \longrightarrow 00:58:09.838$ treatments and then,

NOTE Confidence: 0.903242829285714 00:58:09.840 --> 00:58:10.862 when needed,

NOTE Confidence: 0.903242829285714

 $00:58:10.862 \longrightarrow 00:58:13.417$ think about various evidence based

NOTE Confidence: 0.903242829285714

 $00:58:13.417 \longrightarrow 00:58:14.950$ pharmacotherapy strategies we

NOTE Confidence: 0.903242829285714

00:58:15.021 --> 00:58:17.077 talked about always monitoring,

NOTE Confidence: 0.903242829285714

 $00{:}58{:}17.080 \dashrightarrow 00{:}58{:}19.115$ tolerability and and side effects

NOTE Confidence: 0.903242829285714

 $00:58:19.115 \longrightarrow 00:58:20.743$ and giving informed consent.

NOTE Confidence: 0.903242829285714

 $00:58:20.750 \longrightarrow 00:58:21.548$ At the end of the day,

NOTE Confidence: 0.903242829285714

 $00{:}58{:}21.550 \to 00{:}58{:}23.258$ you know when you've got a really

NOTE Confidence: 0.903242829285714

 $00:58:23.258 \longrightarrow 00:58:24.241$ challenging patient like some

NOTE Confidence: 0.903242829285714

 $00:58:24.241 \longrightarrow 00:58:25.465$ of the ones that I mentioned.

00:58:25.470 --> 00:58:27.549 If you break it down to the basics of,

NOTE Confidence: 0.903242829285714

 $00:58:27.550 \longrightarrow 00:58:29.246$ you know what we're trying to do here.

NOTE Confidence: 0.903242829285714

 $00:58:29.250 \longrightarrow 00:58:30.805$ Our goals are pretty much

NOTE Confidence: 0.903242829285714

 $00:58:30.805 \longrightarrow 00:58:32.049$ always aligned with families.

NOTE Confidence: 0.903242829285714

00:58:32.050 --> 00:58:34.394 If we break it down to enhancing quality

NOTE Confidence: 0.903242829285714

 $00:58:34.394 \longrightarrow 00:58:36.508$ of life in keeping someone safe.

NOTE Confidence: 0.903242829285714

 $00:58:36.510 \longrightarrow 00:58:38.316$ And sometimes it's very complicated to

NOTE Confidence: 0.903242829285714

00:58:38.316 --> 00:58:40.389 figure out the right pathway forward,

NOTE Confidence: 0.903242829285714

 $00:58:40.390 \longrightarrow 00:58:42.174$ but that often will take a lot of

NOTE Confidence: 0.903242829285714

 $00:58:42.174 \longrightarrow 00:58:43.817$ the stress out of the room and

NOTE Confidence: 0.903242829285714

 $00{:}58{:}43.817 \dashrightarrow 00{:}58{:}45.270$ allow people to develop a plan.

NOTE Confidence: 0.903242829285714

 $00:58:45.270 \longrightarrow 00:58:46.178$ And then finally there,

NOTE Confidence: 0.903242829285714

00:58:46.178 --> 00:58:47.939 there's going to be a lot more

NOTE Confidence: 0.903242829285714

 $00:58:47.939 \longrightarrow 00:58:49.319$ information about novel integrated

NOTE Confidence: 0.903242829285714

00:58:49.319 --> 00:58:51.110 care models, not just for dementia.

NOTE Confidence: 0.903242829285714

 $00:58:51.110 \longrightarrow 00:58:52.760$ But for all sorts of psychiatric

 $00:58:52.810 \longrightarrow 00:58:54.360$ care and primary care settings.

NOTE Confidence: 0.903242829285714

 $00:58:54.360 \longrightarrow 00:58:55.655$ I know many of you do this.

NOTE Confidence: 0.903242829285714

 $00:58:55.660 \longrightarrow 00:58:56.738$ I mean the VA, by the way,

NOTE Confidence: 0.903242829285714

 $00:58:56.740 \longrightarrow 00:58:58.476$ has been doing most of this than

NOTE Confidence: 0.903242829285714

00:58:58.476 --> 00:59:00.839 the rest of the health care systems

NOTE Confidence: 0.903242829285714

00:59:00.839 --> 00:59:02.784 because they essentially had these

NOTE Confidence: 0.903242829285714

 $00:59:02.784 \longrightarrow 00:59:04.322$ integrated care models going on

NOTE Confidence: 0.903242829285714

 $00:59:04.322 \longrightarrow 00:59:05.948$ way longer than the rest of

NOTE Confidence: 0.903242829285714

 $00:59:05.950 \longrightarrow 00:59:06.718$ traditional health care.

NOTE Confidence: 0.903242829285714

 $00{:}59{:}06.718 \dashrightarrow 00{:}59{:}08.254$ But you're going to be seeing

NOTE Confidence: 0.903242829285714

 $00:59:08.254 \longrightarrow 00:59:09.300$ more and more of this,

NOTE Confidence: 0.903242829285714

 $00:59:09.300 \longrightarrow 00:59:10.710$ and I'm hopeful that it

NOTE Confidence: 0.903242829285714

 $00{:}59{:}10.710 \dashrightarrow 00{:}59{:}12.120$ really allows those of us

NOTE Confidence: 0.94436194

00:59:12.177 --> 00:59:13.899 in psychiatry to really make a

NOTE Confidence: 0.94436194

 $00:59:13.899 \longrightarrow 00:59:15.764$ big impact and take a leadership

 $00{:}59{:}15.764 \dashrightarrow 00{:}59{:}17.382$ role in caring for patients

NOTE Confidence: 0.94436194

 $00:59:17.382 \longrightarrow 00:59:18.674$ in primary care settings.

NOTE Confidence: 0.94436194

 $00:59:18.680 \longrightarrow 00:59:21.308$ So I'm going to stop there.

NOTE Confidence: 0.94436194

 $00:59:21.310 \longrightarrow 00:59:23.678$ And welcome any questions.

NOTE Confidence: 0.836283214

 $00{:}59{:}24.290 \dashrightarrow 00{:}59{:}28.202$ So Brent first of all, let me just

NOTE Confidence: 0.836283214

 $00:59:28.202 \longrightarrow 00:59:30.386$ thank you for a wonderful talk.

NOTE Confidence: 0.836283214

 $00{:}59{:}30.390 \dashrightarrow 00{:}59{:}32.000$ Couldn't couldn't thank you enough.