

WEBVTT

NOTE duration:"01:00:16.0320000"

NOTE language:en-us

NOTE Confidence: 0.846817

00:00:15.150 --> 00:00:16.362 Alright, good afternoon everybody.

NOTE Confidence: 0.846817

00:00:16.362 --> 00:00:18.879 I think we're going to get started here.

NOTE Confidence: 0.846817

00:00:18.880 --> 00:00:20.746 I'm Lauren Tobias and I'd like

NOTE Confidence: 0.846817

00:00:20.750 --> 00:00:22.616 to welcome you to our Yale

NOTE Confidence: 0.846817

00:00:22.616 --> 00:00:23.860 Sleep Seminar this afternoon.

NOTE Confidence: 0.846817

00:00:23.860 --> 00:00:25.413 Just a few quick announcements

NOTE Confidence: 0.846817

00:00:25.413 --> 00:00:26.660 before we get started.

NOTE Confidence: 0.846817

00:00:26.660 --> 00:00:28.212 Please take a moment to

NOTE Confidence: 0.846817

00:00:28.212 --> 00:00:29.460 make sure that you're

NOTE Confidence: 0.846817

00:00:29.460 --> 00:00:31.948 muted in order to receive CME credit for

NOTE Confidence: 0.846817

00:00:31.948 --> 00:00:33.860 attendance, please see the chat room.

NOTE Confidence: 0.846817

00:00:33.860 --> 00:00:35.660 For instructions, there's a unique

NOTE Confidence: 0.8698682

00:00:35.660 --> 00:00:36.968 idea that you can

NOTE Confidence: 0.8698682

00:00:36.970 --> 00:00:38.938 chat that you can text anytime.

NOTE Confidence: 0.8698682

00:00:38.940 --> 00:00:40.580 Up until 3:15 PM today,

NOTE Confidence: 0.8698682

00:00:40.580 --> 00:00:42.218 and if you're not already

NOTE Confidence: 0.8698682

00:00:42.218 --> 00:00:43.530 registered with Chelsea and

NOTE Confidence: 0.8698682

00:00:43.530 --> 00:00:45.830 me will need to do that first.

NOTE Confidence: 0.8698682

00:00:45.830 --> 00:00:47.792 If you have any questions during

NOTE Confidence: 0.8698682

00:00:47.792 --> 00:00:49.440 the presentation, please feel free

NOTE Confidence: 0.8698682

00:00:49.440 --> 00:00:52.056 to make use of the chat room throughout

NOTE Confidence: 0.8698682

00:00:52.060 --> 00:00:54.687 the hour. Or you can unmute yourself and

NOTE Confidence: 0.8698682

00:00:54.687 --> 00:00:57.304 speak at the end and ask your questions.

NOTE Confidence: 0.8698682

00:00:57.304 --> 00:00:59.272 And please feel free to share

NOTE Confidence: 0.8698682

00:00:59.272 --> 00:01:00.584 announcements about this lecture

NOTE Confidence: 0.8698682

00:01:00.590 --> 00:01:02.226 series with anyone who you

NOTE Confidence: 0.8698682

00:01:02.226 --> 00:01:03.870 think may be interested. Or

NOTE Confidence: 0.8698682

00:01:03.870 --> 00:01:06.159 you can contact Debbie Lovejoy directly to.

NOTE Confidence: 0.8218935

00:01:06.260 --> 00:01:09.040 He added to our email list,

NOTE Confidence: 0.8218935

00:01:09.040 --> 00:01:12.740 so with that I'm going to turn it  
NOTE Confidence: 0.8218935

00:01:12.740 --> 00:01:15.978 over to Doctor Mayer Creaker who is  
NOTE Confidence: 0.8218935

00:01:15.980 --> 00:01:18.295 going to be introducing our  
NOTE Confidence: 0.8218935

00:01:18.295 --> 00:01:20.147 speaker for this afternoon,  
NOTE Confidence: 0.8218935

00:01:20.150 --> 00:01:23.286 so I'm delighted to introduce Glenda Bowen  
NOTE Confidence: 0.8218935

00:01:23.286 --> 00:01:26.630 Ann and she's a Sleep Medicine fellow.  
NOTE Confidence: 0.8218935

00:01:26.630 --> 00:01:29.850 Glenda went to medical school in Honduras  
NOTE Confidence: 0.8218935

00:01:29.850 --> 00:01:33.217 and she interned in internal medicine in  
NOTE Confidence: 0.8218935

00:01:33.217 --> 00:01:36.630 Danbury Hospital at the Yale program there.  
NOTE Confidence: 0.8218935

00:01:36.630 --> 00:01:39.367 Did her residency there became chief resident  
NOTE Confidence: 0.8218935

00:01:39.367 --> 00:01:42.372 and did a fellowship in pulmonary and  
NOTE Confidence: 0.8218935

00:01:42.372 --> 00:01:45.660 critical care at the University of Vermont,  
NOTE Confidence: 0.8218935

00:01:45.660 --> 00:01:48.700 and this year is a Sleep Medicine of  
NOTE Confidence: 0.8218935

00:01:48.700 --> 00:01:52.132 fellow and she's currently board certified  
NOTE Confidence: 0.8218935

00:01:52.132 --> 00:01:55.367 in internal Medicine pulmonary medicine.  
NOTE Confidence: 0.8218935

00:01:55.370 --> 00:01:58.177 And she's going to be taking the

NOTE Confidence: 0.8218935

00:01:58.177 --> 00:02:00.229 critical care exams next year.

NOTE Confidence: 0.8218935

00:02:00.230 --> 00:02:02.365 Sleep Fellowship exams this year

NOTE Confidence: 0.8218935

00:02:02.365 --> 00:02:05.699 and and she's going to be not that

NOTE Confidence: 0.8218935

00:02:05.699 --> 00:02:07.925 far from us when she graduates.

NOTE Confidence: 0.8218935

00:02:07.930 --> 00:02:10.765 She will be in in practice and

NOTE Confidence: 0.8218935

00:02:10.765 --> 00:02:11.980 in western Massachusetts,

NOTE Confidence: 0.8218935

00:02:11.980 --> 00:02:15.616 and we hope to keep in contact with her.

NOTE Confidence: 0.8218935

00:02:15.620 --> 00:02:18.056 So Glenda is going to tell us

NOTE Confidence: 0.8218935

00:02:18.056 --> 00:02:21.019 everything we need to know about the

NOTE Confidence: 0.8218935

00:02:21.019 --> 00:02:23.319 diagnosis and management of narcolepsy.

NOTE Confidence: 0.8218935

00:02:23.320 --> 00:02:24.984 There been some exciting?

NOTE Confidence: 0.8218935

00:02:24.984 --> 00:02:27.064 A developments in that area,

NOTE Confidence: 0.8218935

00:02:27.070 --> 00:02:29.548 we're gonna hear from Glenda right now,

NOTE Confidence: 0.8218935

00:02:29.550 --> 00:02:30.958 Linda. Take it away.

NOTE Confidence: 0.8591424

00:02:32.690 --> 00:02:35.612 Thank you Doctor Krieger for your

NOTE Confidence: 0.8591424

00:02:35.612 --> 00:02:38.052 introduction, so I guess I'll  
NOTE Confidence: 0.8591424

00:02:38.052 --> 00:02:41.460 just kind of get right to it.  
NOTE Confidence: 0.8591424

00:02:41.460 --> 00:02:45.282 So narcolepsy is a disorder that causes  
NOTE Confidence: 0.8591424

00:02:45.282 --> 00:02:49.130 a disabling level of daytime sleepiness.  
NOTE Confidence: 0.8591424

00:02:49.130 --> 00:02:51.926 Our understanding of the pathogenesis and  
NOTE Confidence: 0.8591424

00:02:51.926 --> 00:02:55.300 the clinical nature of narcolepsy has grown  
NOTE Confidence: 0.8591424

00:02:55.300 --> 00:02:58.162 exponentially in the last two decades.  
NOTE Confidence: 0.90782744

00:03:02.000 --> 00:03:04.820 During this talk.  
NOTE Confidence: 0.90782744

00:03:04.820 --> 00:03:07.050 I want to review the  
NOTE Confidence: 0.90782744

00:03:07.050 --> 00:03:08.388 pathophysiology of narcolepsy.  
NOTE Confidence: 0.90782744

00:03:08.390 --> 00:03:10.574 I'll outline the diagnostic  
NOTE Confidence: 0.90782744

00:03:10.574 --> 00:03:12.758 criteria of the disease.  
NOTE Confidence: 0.90782744

00:03:12.760 --> 00:03:16.197 Talk about prognosis and goals of treatment.  
NOTE Confidence: 0.90782744

00:03:16.200 --> 00:03:18.255 And review the recently updated  
NOTE Confidence: 0.90782744

00:03:18.255 --> 00:03:20.310 practice parameters of the ASM  
NOTE Confidence: 0.90782744

00:03:20.378 --> 00:03:22.498 for the treatment of narcolepsy,

NOTE Confidence: 0.90782744

00:03:22.500 --> 00:03:25.134 which include novel drugs that have

NOTE Confidence: 0.90782744

00:03:25.134 --> 00:03:27.540 recently been approved by the FDA.

NOTE Confidence: 0.8674727

00:03:30.770 --> 00:03:33.675 So here is the obligatory disclosure slide.

NOTE Confidence: 0.8674727

00:03:33.680 --> 00:03:36.176 I have no conflicts of interests.

NOTE Confidence: 0.9054717

00:03:39.560 --> 00:03:42.808 So you can text 21626 to 2034429435

NOTE Confidence: 0.9054717

00:03:42.808 --> 00:03:46.370 to record your attendance. I believe

NOTE Confidence: 0.9054717

00:03:46.370 --> 00:03:49.520 these instructions are in the chat.

NOTE Confidence: 0.9153434

00:03:53.210 --> 00:03:55.634 So I want to start with the case.

NOTE Confidence: 0.9153434

00:03:55.640 --> 00:03:57.794 A young lady that I saw

NOTE Confidence: 0.9153434

00:03:57.794 --> 00:03:59.990 as a brand new fellow.

NOTE Confidence: 0.9153434

00:03:59.990 --> 00:04:03.293 Miss Ma is 19 years old and she presented

NOTE Confidence: 0.9153434

00:04:03.293 --> 00:04:05.277 with excessive daytime sleepiness

NOTE Confidence: 0.9153434

00:04:05.277 --> 00:04:08.854 and episodes of acute onset loss of

NOTE Confidence: 0.9153434

00:04:08.936 --> 00:04:11.617 muscle tone that last less than a

NOTE Confidence: 0.9153434

00:04:11.617 --> 00:04:14.900 minute and are triggered by laughter and joy.

NOTE Confidence: 0.9153434

00:04:14.900 --> 00:04:17.000 These cataplexy episodes happen  
NOTE Confidence: 0.9153434

00:04:17.000 --> 00:04:19.625 almost on a daily basis.  
NOTE Confidence: 0.9153434

00:04:19.630 --> 00:04:21.890 She can sleep on demand.  
NOTE Confidence: 0.9153434

00:04:21.890 --> 00:04:24.758 Her Epworth Sleepiness Scale is 19.  
NOTE Confidence: 0.9153434

00:04:24.760 --> 00:04:27.898 She frequently misses social and family  
NOTE Confidence: 0.9153434

00:04:27.898 --> 00:04:30.930 events because of excessive sleepiness.  
NOTE Confidence: 0.9153434

00:04:30.930 --> 00:04:33.558 She must nap two to three hours in the  
NOTE Confidence: 0.9153434

00:04:33.558 --> 00:04:35.560 afternoon to function in the evening.  
NOTE Confidence: 0.9153434

00:04:35.560 --> 00:04:37.864 She schedules classes and  
NOTE Confidence: 0.9153434

00:04:37.864 --> 00:04:40.168 workshops around her naps.  
NOTE Confidence: 0.9153434

00:04:40.170 --> 00:04:41.574 If she doesn't nap,  
NOTE Confidence: 0.9153434

00:04:41.574 --> 00:04:44.236 she can have two to three cataplexy  
NOTE Confidence: 0.9153434

00:04:44.236 --> 00:04:47.050 episodes a day and her first  
NOTE Confidence: 0.9153434

00:04:47.050 --> 00:04:49.318 cataplexy episode was at age 13.  
NOTE Confidence: 0.9153434

00:04:49.320 --> 00:04:52.106 She has vivid dreams and excellent dream  
NOTE Confidence: 0.9153434

00:04:52.106 --> 00:04:54.878 recall after naps and she doesn't snore.

NOTE Confidence: 0.854686

00:04:59.020 --> 00:05:00.064 She had mononucleosis.

NOTE Confidence: 0.854686

00:05:00.064 --> 00:05:01.804 When she was a teenager,

NOTE Confidence: 0.854686

00:05:01.810 --> 00:05:03.560 she doesn't take any medication.

NOTE Confidence: 0.854686

00:05:03.560 --> 00:05:06.692 She does have a project and IUD in place.

NOTE Confidence: 0.854686

00:05:06.700 --> 00:05:09.484 She is a non smoker and drinks socially.

NOTE Confidence: 0.854686

00:05:09.490 --> 00:05:11.709 She is in college and works as

NOTE Confidence: 0.854686

00:05:11.709 --> 00:05:13.679 a waitress in the evenings.

NOTE Confidence: 0.884605

00:05:16.800 --> 00:05:19.656 On physical exam she has normal

NOTE Confidence: 0.884605

00:05:19.656 --> 00:05:23.121 vital signs for BMI is 23.3 and

NOTE Confidence: 0.884605

00:05:23.121 --> 00:05:26.037 she's oh and overall healthy female

NOTE Confidence: 0.884605

00:05:26.037 --> 00:05:28.767 with a normal physical exam.

NOTE Confidence: 0.884605

00:05:28.770 --> 00:05:30.680 Given her degree of sleepiness,

NOTE Confidence: 0.884605

00:05:30.680 --> 00:05:33.254 a PSG Ms Lt was ordered to work up

NOTE Confidence: 0.884605

00:05:33.254 --> 00:05:36.007 a hypersomnia of central origin.

NOTE Confidence: 0.81834865

00:05:39.190 --> 00:05:41.245 This is the hypnogram from

NOTE Confidence: 0.81834865



00:05:41.245 --> 00:05:42.478 her diagnostic polysomnogram.  
NOTE Confidence: 0.81834865

00:05:42.480 --> 00:05:46.528 We can see sleep stages at the top.  
NOTE Confidence: 0.81834865

00:05:46.530 --> 00:05:48.554 Followed by micro arousals,  
NOTE Confidence: 0.81834865

00:05:48.554 --> 00:05:50.578 the third graph depicts  
NOTE Confidence: 0.81834865

00:05:50.578 --> 00:05:52.659 Apneas and High Papias,  
NOTE Confidence: 0.81834865

00:05:52.660 --> 00:05:55.726 and finally her oxygen saturation levels.  
NOTE Confidence: 0.81834865

00:05:55.730 --> 00:05:59.258 Her total sleep time was 455 minutes  
NOTE Confidence: 0.81834865

00:05:59.258 --> 00:06:02.998 and her sleep efficiency was 91.6%.  
NOTE Confidence: 0.81834865

00:06:03.000 --> 00:06:06.256 Her sleep latency was reduced at 4.5 minutes.  
NOTE Confidence: 0.81834865

00:06:06.260 --> 00:06:08.708 Her REM latency was 5.5 minutes.  
NOTE Confidence: 0.81834865

00:06:08.710 --> 00:06:10.750 She had six R.E.M periods.  
NOTE Confidence: 0.81834865

00:06:10.750 --> 00:06:12.378 Her arousal an awakening  
NOTE Confidence: 0.81834865

00:06:12.378 --> 00:06:14.413 index was 15 an hour.  
NOTE Confidence: 0.81834865

00:06:14.420 --> 00:06:16.898 There was no evidence of sleep  
NOTE Confidence: 0.81834865

00:06:16.898 --> 00:06:18.997 disordered breathing or periodic limb  
NOTE Confidence: 0.81834865

00:06:18.997 --> 00:06:21.615 movements of sleep and her oxygen levels

NOTE Confidence: 0.81834865

00:06:21.615 --> 00:06:23.808 were normal throughout the night.

NOTE Confidence: 0.8069569

00:06:26.870 --> 00:06:29.132 She had a multiple sleep latency

NOTE Confidence: 0.8069569

00:06:29.132 --> 00:06:31.519 test the following day where she

NOTE Confidence: 0.8069569

00:06:31.519 --> 00:06:33.529 had three opportunities to nap.

NOTE Confidence: 0.8069569

00:06:33.530 --> 00:06:35.490 She slept during all Maps

NOTE Confidence: 0.8069569

00:06:35.490 --> 00:06:37.450 and her mean sleep latency.

NOTE Confidence: 0.8069569

00:06:37.450 --> 00:06:39.862 Her average mean sleep latency for

NOTE Confidence: 0.8069569

00:06:39.862 --> 00:06:42.297 these naps was 1.5 minutes and

NOTE Confidence: 0.8069569

00:06:42.297 --> 00:06:44.894 as you can see in the hypnogram,

NOTE Confidence: 0.8069569

00:06:44.900 --> 00:06:47.980 she had sleep onset REM periods or

NOTE Confidence: 0.8069569

00:06:47.980 --> 00:06:50.679 saw ramps during all three naps.

NOTE Confidence: 0.8069569

00:06:50.680 --> 00:06:53.416 A sorum is a ramp period that occurs

NOTE Confidence: 0.8069569

00:06:53.416 --> 00:06:55.890 within 15 minutes of sleep onset,

NOTE Confidence: 0.8069569

00:06:55.890 --> 00:06:58.592 including the sleep onset REM period that

NOTE Confidence: 0.8069569

00:06:58.592 --> 00:07:01.836 she had on the PSG on the prior night.

NOTE Confidence: 0.8069569

00:07:01.840 --> 00:07:05.664 She had a total of four saw reps.  
NOTE Confidence: 0.8069569

00:07:05.670 --> 00:07:07.830 Given her clinical findings of excessive  
NOTE Confidence: 0.8069569

00:07:07.830 --> 00:07:09.270 daytime sleepiness and cataplexy,  
NOTE Confidence: 0.8069569

00:07:09.270 --> 00:07:11.814 as well as her PSG MSL T findings  
NOTE Confidence: 0.8069569

00:07:11.814 --> 00:07:14.356 of mean sleep latency of less than  
NOTE Confidence: 0.8069569

00:07:14.356 --> 00:07:17.190 8 minutes and two or more storms,  
NOTE Confidence: 0.8069569

00:07:17.190 --> 00:07:18.630 she was diagnosed diagnosed  
NOTE Confidence: 0.8069569

00:07:18.630 --> 00:07:20.070 with narcolepsy Type 1.  
NOTE Confidence: 0.8702814

00:07:23.510 --> 00:07:25.256 As a brand new sleep fellow,  
NOTE Confidence: 0.8702814

00:07:25.260 --> 00:07:27.290 I was very excited about this case.  
NOTE Confidence: 0.8702814

00:07:27.290 --> 00:07:29.492 She was the first patient with  
NOTE Confidence: 0.8702814

00:07:29.492 --> 00:07:31.589 narcolepsy I ever took care of.  
NOTE Confidence: 0.8702814

00:07:31.590 --> 00:07:33.906 I wondered how much I could  
NOTE Confidence: 0.8702814

00:07:33.906 --> 00:07:35.064 improve her symptoms.  
NOTE Confidence: 0.8702814

00:07:35.070 --> 00:07:37.398 I wondered what her prognosis was.  
NOTE Confidence: 0.8702814

00:07:37.400 --> 00:07:39.390 What are the therapeutic options

NOTE Confidence: 0.8702814

00:07:39.390 --> 00:07:40.982 for patients with narcolepsy

NOTE Confidence: 0.8702814

00:07:40.982 --> 00:07:43.277 and what would be the best

NOTE Confidence: 0.8702814

00:07:43.277 --> 00:07:44.745 treatment specifically for her?

NOTE Confidence: 0.8702814

00:07:44.750 --> 00:07:47.072 What are the goals of therapy

NOTE Confidence: 0.8702814

00:07:47.072 --> 00:07:48.620 when treating these patients?

NOTE Confidence: 0.89382243

00:07:53.050 --> 00:07:55.348 As I learned about the disease,

NOTE Confidence: 0.89382243

00:07:55.350 --> 00:07:58.074 I came across this case report

NOTE Confidence: 0.89382243

00:07:58.074 --> 00:08:01.279 written in 1906 by Doctor Rogers.

NOTE Confidence: 0.89382243

00:08:01.280 --> 00:08:03.158 And he, when he describes narcolepsy,

NOTE Confidence: 0.89382243

00:08:03.160 --> 00:08:06.220 he writes. By narcolepsy I wish

NOTE Confidence: 0.89382243

00:08:06.220 --> 00:08:09.370 you to understand a condition.

NOTE Confidence: 0.89382243

00:08:09.370 --> 00:08:11.932 In which a patient with almost

NOTE Confidence: 0.89382243

00:08:11.932 --> 00:08:13.640 lightning like rapidity false

NOTE Confidence: 0.89382243

00:08:13.720 --> 00:08:15.928 into a sleep of short duration,

NOTE Confidence: 0.89382243

00:08:15.930 --> 00:08:18.800 the condition not being one of epilepsy.

NOTE Confidence: 0.8356946

00:08:23.440 --> 00:08:25.684 Narcolepsy is characterized by  
NOTE Confidence: 0.8356946

00:08:25.684 --> 00:08:27.452 daytime sleepiness, cataplexy,  
NOTE Confidence: 0.8356946

00:08:27.452 --> 00:08:30.662 and striking transitions from wakefulness  
NOTE Confidence: 0.8356946

00:08:30.662 --> 00:08:33.830 into rapid eye movement sleep.  
NOTE Confidence: 0.8356946

00:08:33.830 --> 00:08:36.345 It nearly always has profound  
NOTE Confidence: 0.8356946

00:08:36.345 --> 00:08:37.854 and potentially disabling  
NOTE Confidence: 0.8356946

00:08:37.854 --> 00:08:40.320 effects on affected patients.  
NOTE Confidence: 0.8356946

00:08:40.320 --> 00:08:42.224 The incidence is anywhere  
NOTE Confidence: 0.8356946

00:08:42.224 --> 00:08:45.080 from 20 to 67 per 100,000,  
NOTE Confidence: 0.8356946

00:08:45.080 --> 00:08:48.218 and the ICS definition of narcolepsy  
NOTE Confidence: 0.8356946

00:08:48.218 --> 00:08:51.339 states that the subject must have  
NOTE Confidence: 0.8356946

00:08:51.339 --> 00:08:54.159 periods during the daytime in which  
NOTE Confidence: 0.8356946

00:08:54.159 --> 00:08:57.251 there is an irrepressible need to  
NOTE Confidence: 0.8356946

00:08:57.251 --> 00:09:00.335 sleep or actual lapses into sleep.  
NOTE Confidence: 0.8356946

00:09:00.340 --> 00:09:02.200 Occurring for at least three  
NOTE Confidence: 0.8356946

00:09:02.200 --> 00:09:04.060 months on a daily basis.

NOTE Confidence: 0.8031694

00:09:09.090 --> 00:09:11.460 In 1998, the CIA and colleagues

NOTE Confidence: 0.8031694

00:09:11.460 --> 00:09:14.166 identified a gene expressed in neurons

NOTE Confidence: 0.8031694

00:09:14.166 --> 00:09:16.266 in the paraventricular hypothalamus,

NOTE Confidence: 0.8031694

00:09:16.270 --> 00:09:18.265 which encoded for a proprotein

NOTE Confidence: 0.8031694

00:09:18.265 --> 00:09:20.889 precursor of two peptides that had

NOTE Confidence: 0.8031694

00:09:20.889 --> 00:09:22.560 features of neurotransmitters.

NOTE Confidence: 0.8031694

00:09:22.560 --> 00:09:24.825 Due to its hypothalamic expression

NOTE Confidence: 0.8031694

00:09:24.825 --> 00:09:27.580 pattern and the similarity of the

NOTE Confidence: 0.8031694

00:09:27.580 --> 00:09:29.635 peptide sequences to members of

NOTE Confidence: 0.8031694

00:09:29.635 --> 00:09:31.990 the Incretin family of hormones.

NOTE Confidence: 0.8031694

00:09:31.990 --> 00:09:34.678 It was named the hypocretin gene.

NOTE Confidence: 0.8031694

00:09:34.680 --> 00:09:37.016 Its function was unknown.

NOTE Confidence: 0.8031694

00:09:37.016 --> 00:09:38.768 One month later,

NOTE Confidence: 0.8031694

00:09:38.770 --> 00:09:41.135 Sacchari identified two peptides in

NOTE Confidence: 0.8031694

00:09:41.135 --> 00:09:43.500 the lateral and posterior hypothalamus,

NOTE Confidence: 0.8031694

00:09:43.500 --> 00:09:46.092 a brain region implicating  
NOTE Confidence: 0.8031694

00:09:46.092 --> 00:09:48.036 in promoting feeding.  
NOTE Confidence: 0.8031694

00:09:48.040 --> 00:09:49.945 They called these peptides or  
NOTE Confidence: 0.8031694

00:09:49.945 --> 00:09:53.155 X and a an erection B from the  
NOTE Confidence: 0.8031694

00:09:53.155 --> 00:09:55.195 Greek word orexis for appetite.  
NOTE Confidence: 0.8031694

00:09:55.200 --> 00:09:56.844 These two groups simultaneously  
NOTE Confidence: 0.8031694

00:09:56.844 --> 00:09:58.488 discovered the same neurotransmitter  
NOTE Confidence: 0.8031694

00:09:58.488 --> 00:10:00.379 and gave it different names.  
NOTE Confidence: 0.8031694

00:10:00.380 --> 00:10:01.972 I will use hypocretin,  
NOTE Confidence: 0.8031694

00:10:01.972 --> 00:10:03.166 anorex and interchangeably  
NOTE Confidence: 0.8031694

00:10:03.166 --> 00:10:04.360 throughout my talk.  
NOTE Confidence: 0.792450955

00:10:07.580 --> 00:10:10.574 A year later. Chameli showed that  
NOTE Confidence: 0.792450955

00:10:10.574 --> 00:10:13.213 orexin knockout mice exhibited behavior  
NOTE Confidence: 0.792450955

00:10:13.213 --> 00:10:16.008 similar to humans with narcolepsy.  
NOTE Confidence: 0.792450955

00:10:16.010 --> 00:10:17.934 The scientists documented frequent  
NOTE Confidence: 0.792450955

00:10:17.934 --> 00:10:21.370 episodes of periods that what they called

NOTE Confidence: 0.792450955  
00:10:21.370 --> 00:10:23.740 behavioral arrests in ereckson null  
NOTE Confidence: 0.792450955  
00:10:23.740 --> 00:10:26.550 mice using infrared video photography.  
NOTE Confidence: 0.792450955  
00:10:26.550 --> 00:10:30.108 As mice are active at night  
NOTE Confidence: 0.792450955  
00:10:30.108 --> 00:10:33.100 and sleep during the day.  
NOTE Confidence: 0.792450955  
00:10:33.100 --> 00:10:35.180 This graph depicts data for  
NOTE Confidence: 0.792450955  
00:10:35.180 --> 00:10:36.428 individual knockout mice,  
NOTE Confidence: 0.792450955  
00:10:36.430 --> 00:10:39.758 designated A through eye on the Y access.  
NOTE Confidence: 0.792450955  
00:10:39.760 --> 00:10:41.925 The columns represent the total  
NOTE Confidence: 0.792450955  
00:10:41.925 --> 00:10:44.090 number of episodes of behavioral  
NOTE Confidence: 0.792450955  
00:10:44.159 --> 00:10:46.349 arrest recorded in the first four  
NOTE Confidence: 0.792450955  
00:10:46.349 --> 00:10:48.490 hours after onset of darkness,  
NOTE Confidence: 0.792450955  
00:10:48.490 --> 00:10:50.565 and the measurements are depicted  
NOTE Confidence: 0.792450955  
00:10:50.565 --> 00:10:53.480 in the X axis to the left.  
NOTE Confidence: 0.792450955  
00:10:53.480 --> 00:10:55.844 The filled circles represent the mean  
NOTE Confidence: 0.792450955  
00:10:55.844 --> 00:10:58.060 duration of all reported episodes.  
NOTE Confidence: 0.792450955



00:10:58.060 --> 00:10:59.988 The measurements depicted in  
NOTE Confidence: 0.792450955

00:10:59.988 --> 00:11:02.880 the X axis to the right.  
NOTE Confidence: 0.792450955

00:11:02.880 --> 00:11:05.897 The first column depicts the whole group,  
NOTE Confidence: 0.792450955

00:11:05.900 --> 00:11:08.840 which had a mean number of 17  
NOTE Confidence: 0.792450955

00:11:08.840 --> 00:11:11.090 behavioral arrests in four hours,  
NOTE Confidence: 0.792450955

00:11:11.090 --> 00:11:13.214 lasting about 60 seconds.  
NOTE Confidence: 0.792450955

00:11:13.214 --> 00:11:14.807 That same year,  
NOTE Confidence: 0.792450955

00:11:14.810 --> 00:11:17.018 a group in Stanford University showed  
NOTE Confidence: 0.792450955

00:11:17.018 --> 00:11:19.160 that a heritable form of canine  
NOTE Confidence: 0.792450955

00:11:19.160 --> 00:11:21.260 narcolepsy is due to a mutation in  
NOTE Confidence: 0.792450955

00:11:21.260 --> 00:11:23.307 the hypocretin receptor 2 gene.  
NOTE Confidence: 0.8144931

00:11:27.020 --> 00:11:28.870 Soon after, researchers found that  
NOTE Confidence: 0.8144931

00:11:28.870 --> 00:11:31.171 narcolepsy is caused by a highly  
NOTE Confidence: 0.8144931

00:11:31.171 --> 00:11:33.499 selective and severe loss of the  
NOTE Confidence: 0.8144931

00:11:33.499 --> 00:11:35.052 hypocretin neurons that results  
NOTE Confidence: 0.8144931

00:11:35.052 --> 00:11:37.292 in low levels of hypocretin in the

NOTE Confidence: 0.8144931

00:11:37.292 --> 00:11:39.504 brain and the cerebral spinal fluid.

NOTE Confidence: 0.8144931

00:11:39.504 --> 00:11:42.420 I know this is a busy slide,

NOTE Confidence: 0.8144931

00:11:42.420 --> 00:11:45.426 but I wanted to show you in this study

NOTE Confidence: 0.8144931

00:11:45.426 --> 00:11:48.044 hypocretin was measured in the CSF of

NOTE Confidence: 0.8144931

00:11:48.044 --> 00:11:50.548 nine people with narcolepsy an 8 controls.

NOTE Confidence: 0.8144931

00:11:50.550 --> 00:11:53.182 The first nine rows in this table depict

NOTE Confidence: 0.8144931

00:11:53.182 --> 00:11:55.590 data for the narcoleptic patients.

NOTE Confidence: 0.8144931

00:11:55.590 --> 00:11:58.260 As you can see in the column to the far

NOTE Confidence: 0.8144931

00:11:58.329 --> 00:12:01.365 left seven of nine narcoleptic patients

NOTE Confidence: 0.8144931

00:12:01.365 --> 00:12:03.840 had hypocretin concentrations that were

NOTE Confidence: 0.8144931

00:12:03.840 --> 00:12:06.472 below the detection limit of the essay

NOTE Confidence: 0.8144931

00:12:06.472 --> 00:12:09.170 compared to normal levels in the controls.

NOTE Confidence: 0.7451333

00:12:12.080 --> 00:12:16.567 So how do orexin neurons maintain wake?

NOTE Confidence: 0.7451333

00:12:16.570 --> 00:12:19.748 Depicted in the figure and dark blue,

NOTE Confidence: 0.7451333

00:12:19.750 --> 00:12:22.020 these neurons excite various wake,

NOTE Confidence: 0.7451333

00:12:22.020 --> 00:12:22.928 promoting neurons,  
NOTE Confidence: 0.7451333

00:12:22.928 --> 00:12:25.198 including those in the cortex.  
NOTE Confidence: 0.7451333

00:12:25.200 --> 00:12:26.562 Basil, forebrain, tubero,  
NOTE Confidence: 0.7451333

00:12:26.562 --> 00:12:27.470 mammillary nucleus,  
NOTE Confidence: 0.7451333

00:12:27.470 --> 00:12:29.735 the jungle of pontine and  
NOTE Confidence: 0.7451333

00:12:29.735 --> 00:12:31.547 lateral dorsal tegmental nucleus,  
NOTE Confidence: 0.7451333

00:12:31.550 --> 00:12:33.820 dorsal Rath and Locust arulius.  
NOTE Confidence: 0.7451333

00:12:33.820 --> 00:12:36.652 They heavily innervate several regions that  
NOTE Confidence: 0.7451333

00:12:36.652 --> 00:12:39.269 promote arousal and suppress REM sleep,  
NOTE Confidence: 0.7451333

00:12:39.270 --> 00:12:42.840 but maintaining weight is not the  
NOTE Confidence: 0.7451333

00:12:42.840 --> 00:12:46.170 only function of orexin neurons.  
NOTE Confidence: 0.7451333

00:12:46.170 --> 00:12:48.888 These neurons are influenced by input  
NOTE Confidence: 0.7451333

00:12:48.888 --> 00:12:51.649 signals related to sleep wake states,  
NOTE Confidence: 0.7451333

00:12:51.650 --> 00:12:53.538 circadian phase, motivational cues,  
NOTE Confidence: 0.7451333

00:12:53.538 --> 00:12:57.139 and visceral cues such as hunger or thirst,  
NOTE Confidence: 0.7451333

00:12:57.140 --> 00:13:01.220 and they innervate many brain regions.

NOTE Confidence: 0.7451333

00:13:01.220 --> 00:13:03.920 Their activity will ultimately result

NOTE Confidence: 0.7451333

00:13:03.920 --> 00:13:06.620 in long periods of wakefulness,

NOTE Confidence: 0.7451333

00:13:06.620 --> 00:13:09.860 suppression and regulation of REM sleep,

NOTE Confidence: 0.7451333

00:13:09.860 --> 00:13:12.020 enhanced responses to rewards,

NOTE Confidence: 0.7451333

00:13:12.020 --> 00:13:13.100 increased locomotion,

NOTE Confidence: 0.7451333

00:13:13.100 --> 00:13:15.260 and increased autonomic tone.

NOTE Confidence: 0.8523763

00:13:18.340 --> 00:13:21.452 But going back to the fact that narcolepsy

NOTE Confidence: 0.8523763

00:13:21.452 --> 00:13:24.556 is caused by the loss of orexin neurons.

NOTE Confidence: 0.8523763

00:13:24.560 --> 00:13:26.960 What causes this loss is

NOTE Confidence: 0.8523763

00:13:26.960 --> 00:13:28.880 destruction of these neurons.

NOTE Confidence: 0.8523763

00:13:28.880 --> 00:13:32.485 The first clue for an autoimmune disease

NOTE Confidence: 0.8523763

00:13:32.485 --> 00:13:35.020 etiology and narcolepsy was observed

NOTE Confidence: 0.8523763

00:13:35.020 --> 00:13:38.177 in the 1980s when a strong Association

NOTE Confidence: 0.8523763

00:13:38.177 --> 00:13:41.446 with HLA D R2 haplotype was discovered.

NOTE Confidence: 0.8523763

00:13:41.450 --> 00:13:43.500 Narcolepsy type One has the

NOTE Confidence: 0.8523763

00:13:43.500 --> 00:13:46.270 tightest HLA link in any disease.  
NOTE Confidence: 0.8523763

00:13:46.270 --> 00:13:48.460 With the class 2D QB,  
NOTE Confidence: 0.8523763

00:13:48.460 --> 00:13:50.940 10602 allele conferring an increase  
NOTE Confidence: 0.8523763

00:13:50.940 --> 00:13:53.985 of an increased risk of 200  
NOTE Confidence: 0.8523763

00:13:53.985 --> 00:13:56.365 fold of acquiring the disease.  
NOTE Confidence: 0.8523763

00:13:56.370 --> 00:13:58.995 In those Houma Sigusr for this allele,  
NOTE Confidence: 0.8523763

00:13:59.000 --> 00:14:00.880 the risk is doubled compared  
NOTE Confidence: 0.8523763

00:14:00.880 --> 00:14:02.384 to that of heterozygous.  
NOTE Confidence: 0.87086284

00:14:07.480 --> 00:14:11.192 In 2009 to 2010, a striking increase in  
NOTE Confidence: 0.87086284

00:14:11.192 --> 00:14:14.528 narcolepsy cases was seen in Northern Europe,  
NOTE Confidence: 0.87086284

00:14:14.530 --> 00:14:16.075 especially in children.  
NOTE Confidence: 0.87086284

00:14:16.075 --> 00:14:18.650 This increase was quickly traced  
NOTE Confidence: 0.87086284

00:14:18.650 --> 00:14:21.735 back to a widespread vaccination  
NOTE Confidence: 0.87086284

00:14:21.735 --> 00:14:24.359 campaign against H1N1 Influenza,  
NOTE Confidence: 0.87086284

00:14:24.360 --> 00:14:29.536 A that used a vaccine brand called Pandemrix.  
NOTE Confidence: 0.87086284

00:14:29.540 --> 00:14:32.676 A meta analysis by Sarkan and included

NOTE Confidence: 0.87086284

00:14:32.676 --> 00:14:35.488 eleven studies that evaluated the risk

NOTE Confidence: 0.87086284

00:14:35.488 --> 00:14:38.729 of narcolepsy or the number of narcolepsy

NOTE Confidence: 0.87086284

00:14:38.813 --> 00:14:41.437 cases after Pandemrix vaccination.

NOTE Confidence: 0.87086284

00:14:41.440 --> 00:14:43.678 During the first year after vaccination,

NOTE Confidence: 0.87086284

00:14:43.680 --> 00:14:45.176 the relative risk of

NOTE Confidence: 0.87086284

00:14:45.176 --> 00:14:46.298 narcolepsy was increased.

NOTE Confidence: 0.87086284

00:14:46.300 --> 00:14:49.244 5 to 14 fold in children and adolescents

NOTE Confidence: 0.87086284

00:14:49.244 --> 00:14:51.906 and two to seven fold in adults.

NOTE Confidence: 0.87086284

00:14:51.910 --> 00:14:53.780 In the countries where the

NOTE Confidence: 0.87086284

00:14:53.780 --> 00:14:55.650 Pandemrix vaccine was widely used.

NOTE Confidence: 0.83534336

00:14:58.990 --> 00:15:01.730 The most likely culprit,

NOTE Confidence: 0.83534336

00:15:01.730 --> 00:15:05.155 immune mediator of narcolepsy is

NOTE Confidence: 0.83534336

00:15:05.155 --> 00:15:08.309 likely CD 4T cell activation.

NOTE Confidence: 0.83534336

00:15:08.310 --> 00:15:12.334 This is a proposed model of T cell

NOTE Confidence: 0.83534336

00:15:12.334 --> 00:15:15.219 mediated killing of orexin neurons.

NOTE Confidence: 0.83534336

00:15:15.220 --> 00:15:18.995 An antigen presenting cell. Purple.  
NOTE Confidence: 0.83534336

00:15:18.995 --> 00:15:22.025 First takes up a pathogen and  
NOTE Confidence: 0.83534336

00:15:22.025 --> 00:15:24.060 presents fragments of pathogen  
NOTE Confidence: 0.83534336

00:15:24.060 --> 00:15:27.056 proteins to a naive CD 4T cell.  
NOTE Confidence: 0.79044455

00:15:29.720 --> 00:15:32.350 Seen here in light blue.  
NOTE Confidence: 0.79044455

00:15:32.350 --> 00:15:35.176 It does this using a major  
NOTE Confidence: 0.79044455

00:15:35.176 --> 00:15:37.840 histocompatibility complex Class 2 molecule.  
NOTE Confidence: 0.79044455

00:15:37.840 --> 00:15:39.872 Perhaps the QB 10602?  
NOTE Confidence: 0.79044455

00:15:39.872 --> 00:15:42.920 The naive CD 4T cells secrete  
NOTE Confidence: 0.79044455

00:15:43.028 --> 00:15:46.820 cytokines to help clear the infection.  
NOTE Confidence: 0.79044455

00:15:46.820 --> 00:15:49.635 Memory CD4T cells are formed  
NOTE Confidence: 0.79044455

00:15:49.635 --> 00:15:51.887 from that initial infection.  
NOTE Confidence: 0.79044455

00:15:51.890 --> 00:15:55.328 And then these activated memory CD4T  
NOTE Confidence: 0.79044455

00:15:55.328 --> 00:15:58.236 cells cross recognized fragments of  
NOTE Confidence: 0.79044455

00:15:58.236 --> 00:16:01.422 prepro orexin with the pathogen peptide  
NOTE Confidence: 0.79044455

00:16:01.422 --> 00:16:04.219 and secrete cytokines that promote

NOTE Confidence: 0.79044455

00:16:04.219 --> 00:16:07.004 destruction of the orexin neurons.

NOTE Confidence: 0.79044455

00:16:07.010 --> 00:16:09.995 We have learned so much

NOTE Confidence: 0.79044455

00:16:09.995 --> 00:16:12.383 about narcolepsy Type 1.

NOTE Confidence: 0.79044455

00:16:12.390 --> 00:16:15.306 But what about narcolepsy Type 2?

NOTE Confidence: 0.79044455

00:16:15.310 --> 00:16:18.950 This remains one of the largest mysteries.

NOTE Confidence: 0.79044455

00:16:18.950 --> 00:16:21.020 Besides a lack of cataplexy,

NOTE Confidence: 0.79044455

00:16:21.020 --> 00:16:23.827 the symptoms of narcolepsy Type 2 are

NOTE Confidence: 0.79044455

00:16:23.827 --> 00:16:26.818 similar to those of narcolepsy type one.

NOTE Confidence: 0.79044455

00:16:26.820 --> 00:16:30.198 CSF orexin levels are usually normal.

NOTE Confidence: 0.79044455

00:16:30.200 --> 00:16:33.014 It may be caused by a modest

NOTE Confidence: 0.79044455

00:16:33.014 --> 00:16:34.621 loss of orexin neurons,

NOTE Confidence: 0.79044455

00:16:34.621 --> 00:16:36.626 or a completely different process.

NOTE Confidence: 0.79044455

00:16:36.630 --> 00:16:39.354 Almost nothing is known

NOTE Confidence: 0.79044455

00:16:39.354 --> 00:16:41.397 about its neuropathology.

NOTE Confidence: 0.79044455

00:16:41.400 --> 00:16:44.340 Moving from pathophysiology

NOTE Confidence: 0.79044455



00:16:44.340 --> 00:16:47.280 to clinical features.  
NOTE Confidence: 0.79044455

00:16:47.280 --> 00:16:50.759 Narcolepsy falls into the category of the  
NOTE Confidence: 0.79044455

00:16:50.759 --> 00:16:53.620 Central disorders of Hypersomnolence.  
NOTE Confidence: 0.79044455

00:16:53.620 --> 00:16:54.943 These include narcolepsy,  
NOTE Confidence: 0.79044455

00:16:54.943 --> 00:16:56.266 type one narcolepsy,  
NOTE Confidence: 0.79044455

00:16:56.270 --> 00:16:58.480 Type 2 and idiopathic hypersomnia,  
NOTE Confidence: 0.79044455

00:16:58.480 --> 00:17:01.574 which I will refer to as IH.  
NOTE Confidence: 0.84373504

00:17:03.850 --> 00:17:05.955 The common clinical feature among  
NOTE Confidence: 0.84373504

00:17:05.955 --> 00:17:07.639 these is severe sleepiness,  
NOTE Confidence: 0.84373504

00:17:07.640 --> 00:17:12.148 despite normal quality and timing of sleep.  
NOTE Confidence: 0.84373504

00:17:12.150 --> 00:17:14.330 Cataplexy practically defines narcolepsy  
NOTE Confidence: 0.84373504

00:17:14.330 --> 00:17:18.150 type one, and is absent in narcolepsy.  
NOTE Confidence: 0.84373504

00:17:18.150 --> 00:17:23.826 Type 2 and IH. Sleep paralysis and sleep.  
NOTE Confidence: 0.84373504

00:17:23.826 --> 00:17:25.128 Hallucinations are more  
NOTE Confidence: 0.84373504

00:17:25.128 --> 00:17:27.049 common in narcolepsy type one,  
NOTE Confidence: 0.84373504

00:17:27.050 --> 00:17:29.516 but can be seen in narcolepsy.

NOTE Confidence: 0.84373504

00:17:29.520 --> 00:17:32.740 Type 2 and IH.

NOTE Confidence: 0.84373504

00:17:32.740 --> 00:17:35.935 Fragmented nocturnal sleep is much

NOTE Confidence: 0.84373504

00:17:35.935 --> 00:17:38.491 more characteristic of narcolepsy

NOTE Confidence: 0.84373504

00:17:38.491 --> 00:17:41.448 and not typically seen in IH.

NOTE Confidence: 0.84373504

00:17:41.450 --> 00:17:43.394 REM sleep behavior disorder an REM

NOTE Confidence: 0.84373504

00:17:43.394 --> 00:17:46.053 without a tonia are seen in more than

NOTE Confidence: 0.84373504

00:17:46.053 --> 00:17:47.997 half of narcolepsy type one patients

NOTE Confidence: 0.84373504

00:17:48.065 --> 00:17:50.285 and in some patients with narcolepsy.

NOTE Confidence: 0.84373504

00:17:50.290 --> 00:17:52.870 Type 2.

NOTE Confidence: 0.84373504

00:17:52.870 --> 00:17:54.438 Sleep drunkenness is rarely

NOTE Confidence: 0.84373504

00:17:54.438 --> 00:17:56.398 seen in narcolepsy type one,

NOTE Confidence: 0.84373504

00:17:56.400 --> 00:17:58.335 sometimes seen in narcolepsy type

NOTE Confidence: 0.84373504

00:17:58.335 --> 00:18:01.490 2 and is almost a hallmark in IH.

NOTE Confidence: 0.8160262

00:18:03.640 --> 00:18:05.872 Long nocturnal sleep times are seen

NOTE Confidence: 0.8160262

00:18:05.872 --> 00:18:08.476 in less than 20% of patients with

NOTE Confidence: 0.8160262

00:18:08.476 --> 00:18:11.080 narcolepsy, but are very common in IH.  
NOTE Confidence: 0.8000265

00:18:13.410 --> 00:18:15.715 Naps are usually short and  
NOTE Confidence: 0.8000265

00:18:15.715 --> 00:18:17.098 refreshing in narcoleptics,  
NOTE Confidence: 0.8000265

00:18:17.100 --> 00:18:19.405 unlike in patients with idiopathic  
NOTE Confidence: 0.8000265

00:18:19.405 --> 00:18:21.710 hypersomnia that have unrefreshing naps.  
NOTE Confidence: 0.8402278

00:18:24.260 --> 00:18:28.054 But going back to the phenomenon of  
NOTE Confidence: 0.8402278

00:18:28.054 --> 00:18:31.384 cataplexy, as I previously mentioned,  
NOTE Confidence: 0.8402278

00:18:31.384 --> 00:18:35.560 this basically defines narcolepsy Type 1.  
NOTE Confidence: 0.8402278

00:18:35.560 --> 00:18:37.715 The cataplexy episodes generally start  
NOTE Confidence: 0.8402278

00:18:37.715 --> 00:18:40.929 with weakness in the neck or facial  
NOTE Confidence: 0.8402278

00:18:40.929 --> 00:18:43.389 muscles before descending paralysis of  
NOTE Confidence: 0.8402278

00:18:43.389 --> 00:18:46.218 voluntary muscles ensues over a few seconds.  
NOTE Confidence: 0.8402278

00:18:46.220 --> 00:18:48.020 This happens usually in the  
NOTE Confidence: 0.8402278

00:18:48.020 --> 00:18:49.820 context of an emotional stimulus.  
NOTE Confidence: 0.8402278

00:18:49.820 --> 00:18:51.600 Usually a positive emotions  
NOTE Confidence: 0.8402278

00:18:51.600 --> 00:18:53.825 such as joy or laughter.

NOTE Confidence: 0.8402278

00:18:53.830 --> 00:18:56.150 This picture illustrates the

NOTE Confidence: 0.8402278

00:18:56.150 --> 00:18:58.470 proposed mechanism of cataplexy.

NOTE Confidence: 0.8402278

00:18:58.470 --> 00:19:00.480 So the blue lines indicate

NOTE Confidence: 0.8402278

00:19:00.480 --> 00:19:02.490 activation of a neural pathway.

NOTE Confidence: 0.8402278

00:19:02.490 --> 00:19:04.938 The red lines indicate an inhibitory

NOTE Confidence: 0.8402278

00:19:04.938 --> 00:19:07.127 pathway and the dotted lines

NOTE Confidence: 0.8402278

00:19:07.127 --> 00:19:09.547 reflect lack of normal neural

NOTE Confidence: 0.8402278

00:19:09.547 --> 00:19:11.483 activity resulting from hypocretin

NOTE Confidence: 0.8402278

00:19:11.558 --> 00:19:14.048 deficiency due to narcolepsy Type 1.

NOTE Confidence: 0.8402278

00:19:14.050 --> 00:19:16.640 So positive emotions are processed

NOTE Confidence: 0.8402278

00:19:16.640 --> 00:19:18.712 in the prefrontal cortex,

NOTE Confidence: 0.8402278

00:19:18.720 --> 00:19:21.684 with activation of both the amygdala

NOTE Confidence: 0.8402278

00:19:21.684 --> 00:19:23.660 and hypocretin containing neurons

NOTE Confidence: 0.8402278

00:19:23.731 --> 00:19:25.987 within the lateral hypothalamus.

NOTE Confidence: 0.8402278

00:19:25.990 --> 00:19:29.098 In the absense of hypocretin neurons,

NOTE Confidence: 0.8402278

00:19:29.100 --> 00:19:32.592 there is reduced activity in brain  
NOTE Confidence: 0.8402278

00:19:32.592 --> 00:19:35.620 regions that inhibit REM sleep.  
NOTE Confidence: 0.8402278

00:19:35.620 --> 00:19:37.850 Causing increased activity in neurons.  
NOTE Confidence: 0.8402278

00:19:37.850 --> 00:19:40.670 Promoting REM sleep atonia.  
NOTE Confidence: 0.8402278

00:19:40.670 --> 00:19:42.738 Motor neurons are inhibited,  
NOTE Confidence: 0.8402278

00:19:42.738 --> 00:19:44.806 and then cataplexy ensues.  
NOTE Confidence: 0.8515784

00:19:48.630 --> 00:19:50.916 Moving on to the clinical classification.  
NOTE Confidence: 0.8515784

00:19:50.920 --> 00:19:52.332 As I previously mentioned,  
NOTE Confidence: 0.8515784

00:19:52.332 --> 00:19:54.450 narcolepsy falls into the Group of  
NOTE Confidence: 0.8515784

00:19:54.514 --> 00:19:55.998 Central Disorders of Hypersomnolence  
NOTE Confidence: 0.8515784

00:19:55.998 --> 00:19:58.920 and it is then divided into narcolepsy,  
NOTE Confidence: 0.8515784

00:19:58.920 --> 00:20:01.860 type one and narcolepsy Type 2.  
NOTE Confidence: 0.8515784

00:20:01.860 --> 00:20:04.950 With cataplexy and CSF hypocretin  
NOTE Confidence: 0.8515784

00:20:04.950 --> 00:20:06.186 deficiency differentiating  
NOTE Confidence: 0.8515784

00:20:06.186 --> 00:20:09.049 narcolepsy type one from Type 2.  
NOTE Confidence: 0.7829807

00:20:12.360 --> 00:20:15.318 These are the criteria for diagnosis

NOTE Confidence: 0.7829807

00:20:15.318 --> 00:20:18.279 for not narcolepsy from the Icst 3.

NOTE Confidence: 0.7829807

00:20:18.280 --> 00:20:21.704 For narcolepsy type one, one or both of

NOTE Confidence: 0.7829807

00:20:21.704 --> 00:20:24.509 the following criteria should be met.

NOTE Confidence: 0.7829807

00:20:24.510 --> 00:20:27.205 The CSF hypocretin one concentration

NOTE Confidence: 0.7829807

00:20:27.205 --> 00:20:30.427 should be less than 110 picograms

NOTE Confidence: 0.7829807

00:20:30.427 --> 00:20:33.875 per ML or less than 1/3 of mean

NOTE Confidence: 0.7829807

00:20:33.875 --> 00:20:36.918 values obtained in normal subjects.

NOTE Confidence: 0.7829807

00:20:36.920 --> 00:20:41.095 2nd. The presence of cataplexy with

NOTE Confidence: 0.7829807

00:20:41.095 --> 00:20:44.351 the mean sleep latency of less than

NOTE Confidence: 0.7829807

00:20:44.351 --> 00:20:47.179 8 minutes with two or more sleep

NOTE Confidence: 0.7829807

00:20:47.179 --> 00:20:50.199 onset REM periods seen on PSG MSL T.

NOTE Confidence: 0.7829807

00:20:50.200 --> 00:20:52.044 For narcolepsy type 2.

NOTE Confidence: 0.7829807

00:20:52.044 --> 00:20:54.810 All four of the following criteria

NOTE Confidence: 0.7829807

00:20:54.900 --> 00:20:56.440 need to be met met.

NOTE Confidence: 0.7829807

00:20:56.440 --> 00:20:59.512 A mean sleep latency of less than 8

NOTE Confidence: 0.7829807

00:20:59.512 --> 00:21:02.000 minutes with two or more storms seen  
NOTE Confidence: 0.7829807

00:21:02.000 --> 00:21:04.844 on PSG MSL T. Cataplexy is absent.  
NOTE Confidence: 0.7829807

00:21:04.844 --> 00:21:07.892 Either hypocretin and CSF has not  
NOTE Confidence: 0.7829807

00:21:07.892 --> 00:21:11.150 been measured, or if it has been,  
NOTE Confidence: 0.7829807

00:21:11.150 --> 00:21:13.481 the level is over 110 picograms per  
NOTE Confidence: 0.7829807

00:21:13.481 --> 00:21:16.587 ML or over a third of the normal  
NOTE Confidence: 0.7829807

00:21:16.587 --> 00:21:18.617 value and last hypersomnolence and  
NOTE Confidence: 0.7829807

00:21:18.690 --> 00:21:21.329 the MSL T findings are not better  
NOTE Confidence: 0.7829807

00:21:21.329 --> 00:21:23.214 explained by other causes such  
NOTE Confidence: 0.7829807

00:21:23.214 --> 00:21:25.099 as short sleeve shift work,  
NOTE Confidence: 0.7829807

00:21:25.100 --> 00:21:25.854 sleep disorder,  
NOTE Confidence: 0.7829807

00:21:25.854 --> 00:21:27.739 breathing medications or other substances.  
NOTE Confidence: 0.7863634

00:21:31.220 --> 00:21:37.160 A brief word on CSF sampling and HLA testing.  
NOTE Confidence: 0.7863634

00:21:37.160 --> 00:21:41.085 HLA DQ B 10602 positive ITI is 92100% in  
NOTE Confidence: 0.7863634

00:21:41.085 --> 00:21:43.260 patients that have definite cataplexy,  
NOTE Confidence: 0.7863634

00:21:43.260 --> 00:21:45.460 but it decreases with atypical

NOTE Confidence: 0.7863634

00:21:45.460 --> 00:21:47.660 cataplexy or in patients that

NOTE Confidence: 0.7863634

00:21:47.742 --> 00:21:50.238 don't have cataplexy do about 40%.

NOTE Confidence: 0.7863634

00:21:50.240 --> 00:21:53.285 It's important to keep in mind that

NOTE Confidence: 0.7863634

00:21:53.285 --> 00:21:55.952 about 20% of the general population

NOTE Confidence: 0.7863634

00:21:55.952 --> 00:21:58.640 who does not have cataplexy carried

NOTE Confidence: 0.7863634

00:21:58.716 --> 00:22:00.696 the exact same HLA subtype,

NOTE Confidence: 0.7863634

00:22:00.700 --> 00:22:04.366 so HLA testing should not be

NOTE Confidence: 0.7863634

00:22:04.366 --> 00:22:06.810 used to diagnose narcolepsy.

NOTE Confidence: 0.7863634

00:22:06.810 --> 00:22:08.270 Measuring hypocretin levels can

NOTE Confidence: 0.7863634

00:22:08.270 --> 00:22:09.730 provide a definitive diagnosis.

NOTE Confidence: 0.7863634

00:22:09.730 --> 00:22:11.560 In the right clinical context,

NOTE Confidence: 0.7863634

00:22:11.560 --> 00:22:14.010 but it is not always necessary to

NOTE Confidence: 0.7863634

00:22:14.010 --> 00:22:15.570 measure the hypocretin levels.

NOTE Confidence: 0.7863634

00:22:15.570 --> 00:22:18.174 If you have cataplexy in the

NOTE Confidence: 0.7863634

00:22:18.174 --> 00:22:20.740 characteristic PSG MSL T findings.

NOTE Confidence: 0.7863634



00:22:20.740 --> 00:22:22.930 Low hypocretin levels are diagnostic  
NOTE Confidence: 0.7863634

00:22:22.930 --> 00:22:24.682 for type One narcolepsy,  
NOTE Confidence: 0.7863634

00:22:24.690 --> 00:22:28.194 but normal levels don't rule out the disease.  
NOTE Confidence: 0.90340155

00:22:30.340 --> 00:22:33.420 I want to talk about goals of treatment.  
NOTE Confidence: 0.90340155

00:22:33.420 --> 00:22:35.880 So even on optimal conventional treatment,  
NOTE Confidence: 0.90340155

00:22:35.880 --> 00:22:39.120 it is rare to fully normalize the sleep  
NOTE Confidence: 0.90340155

00:22:39.120 --> 00:22:41.958 wake cycle of narcoleptic subjects.  
NOTE Confidence: 0.90340155

00:22:41.960 --> 00:22:44.045 A major objective of treatment  
NOTE Confidence: 0.90340155

00:22:44.045 --> 00:22:46.452 of narcolepsy is, of course,  
NOTE Confidence: 0.90340155

00:22:46.452 --> 00:22:48.756 to alleviate daytime sleepiness.  
NOTE Confidence: 0.90340155

00:22:48.760 --> 00:22:50.940 Other goals include controlling cataplexy,  
NOTE Confidence: 0.90340155

00:22:50.940 --> 00:22:51.840 hypnagogic hallucinations,  
NOTE Confidence: 0.90340155

00:22:51.840 --> 00:22:54.090 and sleep paralysis when they're  
NOTE Confidence: 0.90340155

00:22:54.090 --> 00:22:56.159 present in troublesome to patients,  
NOTE Confidence: 0.90340155

00:22:56.160 --> 00:22:59.416 but the ultimate goal should be to produce  
NOTE Confidence: 0.90340155

00:22:59.416 --> 00:23:02.058 the fullest possible return of normal

NOTE Confidence: 0.90340155

00:23:02.058 --> 00:23:05.290 function for patients at work at school,

NOTE Confidence: 0.90340155

00:23:05.290 --> 00:23:07.030 at home, and socially.

NOTE Confidence: 0.8583253

00:23:09.380 --> 00:23:12.495 I would like to review the guidelines

NOTE Confidence: 0.8583253

00:23:12.495 --> 00:23:14.837 and recommendations from the practice

NOTE Confidence: 0.8583253

00:23:14.837 --> 00:23:17.167 parameters for the treatment of

NOTE Confidence: 0.8583253

00:23:17.167 --> 00:23:19.059 narcolepsy and other hypersomnia

NOTE Confidence: 0.8583253

00:23:19.059 --> 00:23:21.950 of central or origin from the ASM.

NOTE Confidence: 0.8583253

00:23:21.950 --> 00:23:25.630 And this just in an update of these

NOTE Confidence: 0.8583253

00:23:25.630 --> 00:23:28.850 guidelines was published on April 23rd.

NOTE Confidence: 0.8583253

00:23:28.850 --> 00:23:31.738 It includes some of the tried and true

NOTE Confidence: 0.8583253

00:23:31.738 --> 00:23:33.726 medications from the old practices

NOTE Confidence: 0.8583253

00:23:33.726 --> 00:23:36.526 guidelines that had been published in 2007,

NOTE Confidence: 0.8583253

00:23:36.530 --> 00:23:38.786 as well as novel therapies approved

NOTE Confidence: 0.8583253

00:23:38.786 --> 00:23:41.909 by the FDA in the last five years.

NOTE Confidence: 0.789816025714286

00:23:47.450 --> 00:23:49.154 Let's start with Modafinil.

NOTE Confidence: 0.789816025714286

00:23:49.154 --> 00:23:51.284 Which is recommended for treatment  
NOTE Confidence: 0.789816025714286

00:23:51.284 --> 00:23:54.008 of daytime sleepiness and narcolepsy?  
NOTE Confidence: 0.789816025714286

00:23:54.010 --> 00:23:56.576 It acts as an atypical, selective  
NOTE Confidence: 0.789816025714286

00:23:56.576 --> 00:23:58.706 and weak dopamine reuptake inhibitor,  
NOTE Confidence: 0.789816025714286

00:23:58.710 --> 00:24:00.700 which indirectly activates the release  
NOTE Confidence: 0.789816025714286

00:24:00.700 --> 00:24:03.675 of orexin and histamine from the lateral  
NOTE Confidence: 0.789816025714286

00:24:03.675 --> 00:24:05.970 hypothalamus into bruh mammillary nucleus.  
NOTE Confidence: 0.789816025714286

00:24:05.970 --> 00:24:09.624 In amid analysis of over 1000 patients  
NOTE Confidence: 0.789816025714286

00:24:09.624 --> 00:24:12.610 with narcolepsy type one and Type 2.  
NOTE Confidence: 0.789816025714286

00:24:12.610 --> 00:24:15.202 Patients who received Modafinil at doses  
NOTE Confidence: 0.789816025714286

00:24:15.202 --> 00:24:18.651 of 200 to 600 milligrams a day had  
NOTE Confidence: 0.789816025714286

00:24:18.651 --> 00:24:21.748 decreased essm by two point 73 points  
NOTE Confidence: 0.789816025714286

00:24:21.748 --> 00:24:24.205 had increased, mean sleep latency,  
NOTE Confidence: 0.789816025714286

00:24:24.205 --> 00:24:25.985 latency on maintenance of,  
NOTE Confidence: 0.789816025714286

00:24:25.990 --> 00:24:28.220 wakefulness, testing by two point,  
NOTE Confidence: 0.789816025714286

00:24:28.220 --> 00:24:31.340 82 minutes and had a decrease in number

NOTE Confidence: 0.789816025714286  
00:24:31.340 --> 00:24:34.457 and duration of severe somnolence episodes,  
NOTE Confidence: 0.789816025714286  
00:24:34.460 --> 00:24:36.684 sleep attacks and naps.  
NOTE Confidence: 0.789816025714286  
00:24:36.684 --> 00:24:39.464 Common adverse reactions include headache,  
NOTE Confidence: 0.789816025714286  
00:24:39.470 --> 00:24:40.422 nausea, diarrhea,  
NOTE Confidence: 0.789816025714286  
00:24:40.422 --> 00:24:41.374 dizziness, anxiety,  
NOTE Confidence: 0.789816025714286  
00:24:41.374 --> 00:24:43.754 dyspepsia and important to note,  
NOTE Confidence: 0.789816025714286  
00:24:43.760 --> 00:24:46.140 decreased efficacy of oral contraceptives.  
NOTE Confidence: 0.789816025714286  
00:24:46.140 --> 00:24:49.134 Patients should be advised to use  
NOTE Confidence: 0.789816025714286  
00:24:49.134 --> 00:24:51.828 barrier or mechanical methods of  
NOTE Confidence: 0.789816025714286  
00:24:51.828 --> 00:24:54.300 contraception when taking Modafinil.  
NOTE Confidence: 0.789816025714286  
00:24:54.300 --> 00:24:56.532 The approved recommended dose of Modafinil  
NOTE Confidence: 0.789816025714286  
00:24:56.532 --> 00:24:59.549 is 200 to 400 milligrams once daily,  
NOTE Confidence: 0.789816025714286  
00:24:59.550 --> 00:25:01.560 but studies indicate that the use  
NOTE Confidence: 0.789816025714286  
00:25:01.560 --> 00:25:03.899 of a split dose strategy provides  
NOTE Confidence: 0.789816025714286  
00:25:03.899 --> 00:25:06.224 better control of daytime sleepiness  
NOTE Confidence: 0.789816025714286

00:25:06.224 --> 00:25:08.440 than a single daily dose.  
NOTE Confidence: 0.851293439999999

00:25:11.740 --> 00:25:13.854 This study by Schwartz was designed to  
NOTE Confidence: 0.851293439999999

00:25:13.854 --> 00:25:16.054 determine if a split dose of Modafinil  
NOTE Confidence: 0.851293439999999

00:25:16.054 --> 00:25:18.331 would be more effective than a single  
NOTE Confidence: 0.851293439999999

00:25:18.331 --> 00:25:20.181 morning dose for reducing sleepiness  
NOTE Confidence: 0.851293439999999

00:25:20.181 --> 00:25:23.640 in the late afternoon and evening.  
NOTE Confidence: 0.851293439999999

00:25:23.640 --> 00:25:25.970 Patients were randomized to take  
NOTE Confidence: 0.851293439999999

00:25:25.970 --> 00:25:27.834 200 milligrams of Modafinil,  
NOTE Confidence: 0.851293439999999

00:25:27.840 --> 00:25:29.704 a day, 400 milligrams.  
NOTE Confidence: 0.851293439999999

00:25:29.704 --> 00:25:32.034 400 milligram split dose 200  
NOTE Confidence: 0.851293439999999

00:25:32.034 --> 00:25:34.957 and 200 or 600 milligrams split.  
NOTE Confidence: 0.851293439999999

00:25:34.960 --> 00:25:36.583 400 and 200.  
NOTE Confidence: 0.851293439999999

00:25:36.583 --> 00:25:39.288 The split doses produced significantly  
NOTE Confidence: 0.851293439999999

00:25:39.288 --> 00:25:42.114 greater mean improvements from baseline  
NOTE Confidence: 0.851293439999999

00:25:42.114 --> 00:25:45.964 and sleep latency during make MWT than  
NOTE Confidence: 0.851293439999999

00:25:46.052 --> 00:25:49.268 the 200 milligrams once daily regimen.

NOTE Confidence: 0.851293439999999

00:25:49.270 --> 00:25:50.970 There were significant improvements

NOTE Confidence: 0.851293439999999

00:25:50.970 --> 00:25:52.670 in clinical condition measured

NOTE Confidence: 0.851293439999999

00:25:52.670 --> 00:25:54.693 by clinical global impression of

NOTE Confidence: 0.851293439999999

00:25:54.693 --> 00:25:56.919 change scale with respect to evening

NOTE Confidence: 0.851293439999999

00:25:56.919 --> 00:25:58.870 sleepiness and the higher once daily

NOTE Confidence: 0.851293439999999

00:25:58.870 --> 00:26:00.395 dose and split dose regiments,

NOTE Confidence: 0.851293439999999

00:26:00.400 --> 00:26:03.557 then the 200 milligram once daily dose.

NOTE Confidence: 0.851293439999999

00:26:03.560 --> 00:26:06.110 No serious adverse events were reported.

NOTE Confidence: 0.7236123

00:26:09.010 --> 00:26:12.150 Armodafinil is a longer acting

NOTE Confidence: 0.7236123

00:26:12.150 --> 00:26:14.034 enantiomer of Modafinil.

NOTE Confidence: 0.7236123

00:26:14.040 --> 00:26:16.560 A study by harsh comparing our

NOTE Confidence: 0.7236123

00:26:16.560 --> 00:26:18.825 medicinal 150 milligram dose 250

NOTE Confidence: 0.7236123

00:26:18.825 --> 00:26:21.385 milligram dose and placebo showed

NOTE Confidence: 0.7236123

00:26:21.385 --> 00:26:23.433 significantly increased mean sleep

NOTE Confidence: 0.7236123

00:26:23.512 --> 00:26:26.287 latency and maintenance of wakefulness.

NOTE Confidence: 0.7236123

00:26:26.290 --> 00:26:29.230 Testing with armodafinil compared to placebo.

NOTE Confidence: 0.7236123

00:26:29.230 --> 00:26:31.190 There was improved overall

NOTE Confidence: 0.7236123

00:26:31.190 --> 00:26:32.646 clinical condition, memory,

NOTE Confidence: 0.7236123

00:26:32.646 --> 00:26:35.502 attention and fatigue and the most

NOTE Confidence: 0.7236123

00:26:35.502 --> 00:26:38.050 common adverse events were headache,

NOTE Confidence: 0.7236123

00:26:38.050 --> 00:26:39.520 nausea and dizziness.

NOTE Confidence: 0.7678336

00:26:43.490 --> 00:26:45.206 Sodium oxybate or ziram.

NOTE Confidence: 0.7678336

00:26:45.206 --> 00:26:47.351 His recommended for the treatment

NOTE Confidence: 0.7678336

00:26:47.351 --> 00:26:49.920 of cataplexy daytime sleepiness and

NOTE Confidence: 0.7678336

00:26:49.920 --> 00:26:52.500 disrupted sleep due to narcolepsy.

NOTE Confidence: 0.7678336

00:26:52.500 --> 00:26:56.284 It is a sodium salt of gamma hydroxybutyrate,

NOTE Confidence: 0.7678336

00:26:56.290 --> 00:26:59.500 an endogenous metabolite of GABA.

NOTE Confidence: 0.7678336

00:26:59.500 --> 00:27:02.055 It was the first medication to treat

NOTE Confidence: 0.7678336

00:27:02.055 --> 00:27:04.080 both Cardinal symptoms of narcolepsy.

NOTE Confidence: 0.7678336

00:27:04.080 --> 00:27:06.790 Excessive daytime sleepiness and cataplexy.

NOTE Confidence: 0.7678336

00:27:06.790 --> 00:27:08.582 It has a short half life and so

NOTE Confidence: 0.7678336

00:27:08.582 --> 00:27:10.588 it must be given in divided doses.

NOTE Confidence: 0.7678336

00:27:10.590 --> 00:27:12.355 It's given at bedtime and

NOTE Confidence: 0.7678336

00:27:12.355 --> 00:27:14.640 then two to four hours later.

NOTE Confidence: 0.7678336

00:27:14.640 --> 00:27:16.944 The starting dose is 4.5 grams and then

NOTE Confidence: 0.7678336

00:27:16.944 --> 00:27:18.855 you increase .5 to 1 gram per night,

NOTE Confidence: 0.7678336

00:27:18.860 --> 00:27:21.107 every one to two weeks to a

NOTE Confidence: 0.7678336

00:27:21.107 --> 00:27:23.497 maximum dose of 9 grams per night.

NOTE Confidence: 0.7678336

00:27:23.500 --> 00:27:25.675 The prescription of sodium oxybate

NOTE Confidence: 0.7678336

00:27:25.675 --> 00:27:27.415 requires registration and training

NOTE Confidence: 0.7678336

00:27:27.415 --> 00:27:29.614 and distribution to the patient is

NOTE Confidence: 0.7678336

00:27:29.614 --> 00:27:31.910 all made through a central pharmacy.

NOTE Confidence: 0.7678336

00:27:31.910 --> 00:27:34.192 It's known as the \*\*\*\* drug.

NOTE Confidence: 0.7678336

00:27:34.192 --> 00:27:36.148 The compound has a very poor,

NOTE Confidence: 0.7678336

00:27:36.150 --> 00:27:37.954 but not necessarily deserved

NOTE Confidence: 0.7678336

00:27:37.954 --> 00:27:38.856 public reputation.

NOTE Confidence: 0.7678336



00:27:38.860 --> 00:27:41.390 It is easily synthesized and  
NOTE Confidence: 0.7678336

00:27:41.390 --> 00:27:43.414 has been used recreationally.  
NOTE Confidence: 0.7678336

00:27:43.420 --> 00:27:45.448 Side effects include confusion,  
NOTE Confidence: 0.7678336

00:27:45.448 --> 00:27:46.969 enuresis and sleepwalking.  
NOTE Confidence: 0.8432481

00:27:52.050 --> 00:27:55.092 In a study by the Xyron  
NOTE Confidence: 0.8432481

00:27:55.092 --> 00:27:57.120 Multi Center Study Group,  
NOTE Confidence: 0.8432481

00:27:57.120 --> 00:28:00.195 136 patients were randomized to  
NOTE Confidence: 0.8432481

00:28:00.195 --> 00:28:03.847 receive sodium oxybate at doses of  
NOTE Confidence: 0.8432481

00:28:03.847 --> 00:28:07.179 369 grams or placebo for four weeks.  
NOTE Confidence: 0.8432481

00:28:07.180 --> 00:28:09.216 Compared to placebo weekly,  
NOTE Confidence: 0.8432481

00:28:09.216 --> 00:28:11.761 cataplexy attacks were decreased by  
NOTE Confidence: 0.8432481

00:28:11.761 --> 00:28:14.668 sodium oxybate at the six gram dose  
NOTE Confidence: 0.8432481

00:28:14.668 --> 00:28:17.159 and significantly at the 9 gram dose.  
NOTE Confidence: 0.8432481

00:28:17.160 --> 00:28:18.896 The Epworth Sleepiness Scale  
NOTE Confidence: 0.8432481

00:28:18.896 --> 00:28:21.066 was reduced at all doses,  
NOTE Confidence: 0.8432481

00:28:21.070 --> 00:28:24.766 becoming significant at the 9 gram dose.

NOTE Confidence: 0.8432481

00:28:24.770 --> 00:28:27.230 And the clinical global impression of

NOTE Confidence: 0.8432481

00:28:27.230 --> 00:28:29.727 change scale demonstrated a dose related

NOTE Confidence: 0.8432481

00:28:29.727 --> 00:28:32.478 improvement significant at the 9 gram dose.

NOTE Confidence: 0.8488378

00:28:36.770 --> 00:28:38.877 That same group did a study three

NOTE Confidence: 0.8488378

00:28:38.877 --> 00:28:40.905 years later in which they assess

NOTE Confidence: 0.8488378

00:28:40.905 --> 00:28:42.665 the efficacy of sodium oxybate

NOTE Confidence: 0.8488378

00:28:42.665 --> 00:28:44.938 for the treatment of narcolepsy,

NOTE Confidence: 0.8488378

00:28:44.940 --> 00:28:47.365 with an emphasis on excessive

NOTE Confidence: 0.8488378

00:28:47.365 --> 00:28:48.335 daytime sleepiness.

NOTE Confidence: 0.8488378

00:28:48.340 --> 00:28:52.576 228 patients were randomized to take

NOTE Confidence: 0.8488378

00:28:52.576 --> 00:28:56.752 sodium oxybate at doses of 4.569

NOTE Confidence: 0.8488378

00:28:56.752 --> 00:29:00.454 grams or placebo for eight weeks.

NOTE Confidence: 0.8488378

00:29:00.460 --> 00:29:03.078 The 9 gram of sodium oxybate nightly

NOTE Confidence: 0.8488378

00:29:03.078 --> 00:29:05.353 group had significant median increase of

NOTE Confidence: 0.8488378

00:29:05.353 --> 00:29:07.880 mean sleep latency over 10 minutes in

NOTE Confidence: 0.8488378

00:29:07.951 --> 00:29:10.466 the maintenance of wakefulness testing.  
NOTE Confidence: 0.8488378

00:29:10.470 --> 00:29:12.210 Dose related decreases in  
NOTE Confidence: 0.8488378

00:29:12.210 --> 00:29:13.515 median upward sleepiness,  
NOTE Confidence: 0.8488378

00:29:13.520 --> 00:29:16.100 scale and frequency of weekly  
NOTE Confidence: 0.8488378

00:29:16.100 --> 00:29:18.164 inadvertent naps were seen.  
NOTE Confidence: 0.8488378

00:29:18.170 --> 00:29:19.734 And there were significant  
NOTE Confidence: 0.8488378

00:29:19.734 --> 00:29:21.689 improvements in the clinical global  
NOTE Confidence: 0.8488378

00:29:21.689 --> 00:29:23.694 impression of change scale in the  
NOTE Confidence: 0.8488378

00:29:23.694 --> 00:29:25.249 groups treated with sodium oxybate.  
NOTE Confidence: 0.9073893

00:29:28.590 --> 00:29:30.566 So this is not included in the guidelines,  
NOTE Confidence: 0.9073893

00:29:30.570 --> 00:29:33.909 but I thought it was important to mention it.  
NOTE Confidence: 0.9073893

00:29:33.910 --> 00:29:36.880 Siwave is a calcium, magnesium,  
NOTE Confidence: 0.9073893

00:29:36.880 --> 00:29:39.140 potassium and sodium oxybate.  
NOTE Confidence: 0.9073893

00:29:39.140 --> 00:29:41.400 Formulation that has 92%  
NOTE Confidence: 0.9073893

00:29:41.400 --> 00:29:43.124 less sodium than sirem.  
NOTE Confidence: 0.9073893

00:29:43.124 --> 00:29:46.789 It was approved by the FDA in July

NOTE Confidence: 0.9073893

00:29:46.789 --> 00:29:49.741 2020 for the treatment of narcolepsy

NOTE Confidence: 0.9073893

00:29:49.741 --> 00:29:52.110 and patients age 7 or older.

NOTE Confidence: 0.9073893

00:29:52.110 --> 00:29:54.998 A dose of 9 grams of sirem has

NOTE Confidence: 0.9073893

00:29:54.998 --> 00:29:57.709 over 1600 milligrams of sodium,

NOTE Confidence: 0.9073893

00:29:57.710 --> 00:30:00.300 where the recommended daily intake

NOTE Confidence: 0.9073893

00:30:00.300 --> 00:30:04.000 is about 1500 to 2300 milligrams.

NOTE Confidence: 0.9073893

00:30:04.000 --> 00:30:07.462 In a multicenter study of 201

NOTE Confidence: 0.9073893

00:30:07.462 --> 00:30:10.670 patients comparing zywave to placebo.

NOTE Confidence: 0.9073893

00:30:10.670 --> 00:30:12.162 There was statistically significant

NOTE Confidence: 0.9073893

00:30:12.162 --> 00:30:14.027 reductions in the weekly number

NOTE Confidence: 0.9073893

00:30:14.027 --> 00:30:16.123 of cataplexy attacks and upward

NOTE Confidence: 0.9073893

00:30:16.123 --> 00:30:16.957 sleepiness scales.

NOTE Confidence: 0.8421182

00:30:19.370 --> 00:30:21.464 This medication is still given in

NOTE Confidence: 0.8421182

00:30:21.464 --> 00:30:23.615 two nightly doses and the price

NOTE Confidence: 0.8421182

00:30:23.615 --> 00:30:25.335 is also compatible to xyron.

NOTE Confidence: 0.8421182

00:30:25.340 --> 00:30:27.518 The main reason to choose one  
NOTE Confidence: 0.8421182

00:30:27.518 --> 00:30:30.030 over the other is really just  
NOTE Confidence: 0.8421182

00:30:30.030 --> 00:30:31.986 the reduced sodium intake.  
NOTE Confidence: 0.8421182

00:30:31.990 --> 00:30:34.790 The adverse effects of this  
NOTE Confidence: 0.8421182

00:30:34.790 --> 00:30:37.030 medication include headache, nausea,  
NOTE Confidence: 0.8421182

00:30:37.030 --> 00:30:38.710 dizziness, decreased appetite,  
NOTE Confidence: 0.8421182

00:30:38.710 --> 00:30:40.390 parasomnia diarrhea, hyperhidrosis,  
NOTE Confidence: 0.8421182

00:30:40.390 --> 00:30:42.070 anxiety and vomiting.  
NOTE Confidence: 0.8561068

00:30:44.770 --> 00:30:46.420 Amphetamines are recommended  
NOTE Confidence: 0.8561068

00:30:46.420 --> 00:30:49.170 for the treatment of daytime  
NOTE Confidence: 0.8561068

00:30:49.170 --> 00:30:51.420 sleepiness due to narcolepsy.  
NOTE Confidence: 0.8561068

00:30:51.420 --> 00:30:52.761 These medications increase  
NOTE Confidence: 0.8561068

00:30:52.761 --> 00:30:54.549 the release of dopamine,  
NOTE Confidence: 0.8561068

00:30:54.550 --> 00:30:55.891 norepinephrine, and serotonin.  
NOTE Confidence: 0.8561068

00:30:55.891 --> 00:30:57.679 Their wake promoting agents,  
NOTE Confidence: 0.8561068

00:30:57.680 --> 00:30:59.464 but also can reduce

NOTE Confidence: 0.8561068

00:30:59.464 --> 00:31:01.248 cataplexy at higher doses.

NOTE Confidence: 0.8561068

00:31:01.250 --> 00:31:03.650 They are available in slow or

NOTE Confidence: 0.8561068

00:31:03.650 --> 00:31:04.850 extended release formulations

NOTE Confidence: 0.8561068

00:31:04.850 --> 00:31:07.070 in randomized clinical trials.

NOTE Confidence: 0.8561068

00:31:07.070 --> 00:31:09.185 Looking at afeta means and

NOTE Confidence: 0.8561068

00:31:09.185 --> 00:31:11.300 narcolepsy show that they increase

NOTE Confidence: 0.8561068

00:31:11.376 --> 00:31:13.320 mean sleep latency decrease.

NOTE Confidence: 0.8561068

00:31:13.320 --> 00:31:14.216 Subjective sleepiness,

NOTE Confidence: 0.8561068

00:31:14.216 --> 00:31:15.560 decreased driving errors,

NOTE Confidence: 0.8561068

00:31:15.560 --> 00:31:18.941 and improve ability to stay awake on

NOTE Confidence: 0.8561068

00:31:18.941 --> 00:31:21.090 maintenance of wakefulness testing.

NOTE Confidence: 0.8561068

00:31:21.090 --> 00:31:24.230 The adverse effects include tachycardia,

NOTE Confidence: 0.8561068

00:31:24.230 --> 00:31:24.857 hypertension,

NOTE Confidence: 0.8561068

00:31:24.857 --> 00:31:26.738 palpitations and sweating.

NOTE Confidence: 0.8387531

00:31:30.690 --> 00:31:33.555 Anti depressants such as tricyclic

NOTE Confidence: 0.8387531

00:31:33.555 --> 00:31:35.274 antidepressants and selective  
NOTE Confidence: 0.8387531

00:31:35.274 --> 00:31:37.250 serotonin reuptake inhibitors,  
NOTE Confidence: 0.8387531

00:31:37.250 --> 00:31:43.498 have been used off label to treat cataplexy.  
NOTE Confidence: 0.8387531

00:31:43.500 --> 00:31:45.630 These medications are not included in  
NOTE Confidence: 0.8387531

00:31:45.630 --> 00:31:48.620 the current update, but I do think  
NOTE Confidence: 0.8387531

00:31:48.620 --> 00:31:51.500 it is important to review them.  
NOTE Confidence: 0.8387531

00:31:51.500 --> 00:31:55.630 These medications suppress REM sleep.  
NOTE Confidence: 0.8387531

00:31:55.630 --> 00:31:57.865 There was really limited evidence  
NOTE Confidence: 0.8387531

00:31:57.865 --> 00:31:59.206 supporting this recommendation  
NOTE Confidence: 0.8387531

00:31:59.206 --> 00:32:01.210 from the prior guidelines,  
NOTE Confidence: 0.8387531

00:32:01.210 --> 00:32:03.862 so recommendation was based on clinical  
NOTE Confidence: 0.8387531

00:32:03.862 --> 00:32:06.330 experience of Sleep specialist committee,  
NOTE Confidence: 0.8387531

00:32:06.330 --> 00:32:09.120 consensus case reports and case studies.  
NOTE Confidence: 0.8387531

00:32:09.120 --> 00:32:11.440 Important to mention that unlike  
NOTE Confidence: 0.8387531

00:32:11.440 --> 00:32:13.296 with anxiety or depression,  
NOTE Confidence: 0.8387531

00:32:13.300 --> 00:32:15.636 these medications are immediately

NOTE Confidence: 0.8387531

00:32:15.636 --> 00:32:17.388 active on cataplexy.

NOTE Confidence: 0.8387531

00:32:17.390 --> 00:32:19.294 We don't have to wait four to

NOTE Confidence: 0.8387531

00:32:19.294 --> 00:32:21.348 six weeks to see their effects.

NOTE Confidence: 0.8387531

00:32:21.350 --> 00:32:23.876 It is important to note that

NOTE Confidence: 0.8387531

00:32:23.876 --> 00:32:26.152 rebound cataplexy can happen with

NOTE Confidence: 0.8387531

00:32:26.152 --> 00:32:28.220 abrupt cessation of treatment.

NOTE Confidence: 0.84720874

00:32:31.880 --> 00:32:33.374 So behavioral interventions

NOTE Confidence: 0.84720874

00:32:33.374 --> 00:32:35.366 can help symptom management.

NOTE Confidence: 0.84720874

00:32:35.370 --> 00:32:37.870 Scheduled naps can be beneficial

NOTE Confidence: 0.84720874

00:32:37.870 --> 00:32:39.370 to combat sleepiness,

NOTE Confidence: 0.84720874

00:32:39.370 --> 00:32:41.860 but it seldom is enough.

NOTE Confidence: 0.84720874

00:32:41.860 --> 00:32:45.360 Wake promoting agents are needed.

NOTE Confidence: 0.84720874

00:32:45.360 --> 00:32:46.560 Good sleep hygiene.

NOTE Confidence: 0.84720874

00:32:46.560 --> 00:32:48.560 Keeping a regular sleep schedule,

NOTE Confidence: 0.84720874

00:32:48.560 --> 00:32:50.093 avoiding alcohol and

NOTE Confidence: 0.84720874



00:32:50.093 --> 00:32:51.626 sedatives is recommended.  
NOTE Confidence: 0.84720874

00:32:51.630 --> 00:32:53.090 And accident prevention and  
NOTE Confidence: 0.84720874

00:32:53.090 --> 00:32:54.550 safe driving are important,  
NOTE Confidence: 0.84720874

00:32:54.550 --> 00:32:56.462 particularly in those patients  
NOTE Confidence: 0.84720874

00:32:56.462 --> 00:32:58.374 operating heavy machinery or  
NOTE Confidence: 0.84720874

00:32:58.374 --> 00:33:00.670 who work in transportation.  
NOTE Confidence: 0.84720874

00:33:00.670 --> 00:33:05.053 I would like to move on to novel therapies.  
NOTE Confidence: 0.84720874

00:33:05.060 --> 00:33:06.495 These have been approved by  
NOTE Confidence: 0.84720874

00:33:06.495 --> 00:33:08.620 the FDA in the last five years  
NOTE Confidence: 0.84720874

00:33:08.620 --> 00:33:10.498 and are now in the guidelines.  
NOTE Confidence: 0.7809451

00:33:14.280 --> 00:33:16.860 Patala St tradename Wakix was approved  
NOTE Confidence: 0.7809451

00:33:16.860 --> 00:33:20.680 by the FDA on Aug 2019 for excessive  
NOTE Confidence: 0.7809451

00:33:20.680 --> 00:33:23.704 daytime sleepiness and on October 2020  
NOTE Confidence: 0.7809451

00:33:23.792 --> 00:33:27.098 for cataplexy in adults with narcolepsy.  
NOTE Confidence: 0.7809451

00:33:27.100 --> 00:33:30.999 It is an inverse agonist of the  
NOTE Confidence: 0.7809451

00:33:30.999 --> 00:33:32.670 histamine three autoreceptor.

NOTE Confidence: 0.7809451

00:33:32.670 --> 00:33:35.435 As seen in the figure and label,

NOTE Confidence: 0.7809451

00:33:35.440 --> 00:33:37.976 one petola St binds to the H3 receptor

NOTE Confidence: 0.7809451

00:33:37.976 --> 00:33:40.139 and blocks inhibition of histamine

NOTE Confidence: 0.7809451

00:33:40.139 --> 00:33:42.569 synthesis in the presynaptic neuron.

NOTE Confidence: 0.7809451

00:33:42.570 --> 00:33:44.575 This causes increased histamine synthesis

NOTE Confidence: 0.7809451

00:33:44.575 --> 00:33:47.319 and release of histamine into the synapse.

NOTE Confidence: 0.7809451

00:33:47.320 --> 00:33:50.715 As you can see in Label 2.

NOTE Confidence: 0.7809451

00:33:50.720 --> 00:33:53.060 And then histamine binds to postsynaptic

NOTE Confidence: 0.7809451

00:33:53.060 --> 00:33:55.495 H1 receptors which then modulates the

NOTE Confidence: 0.7809451

00:33:55.495 --> 00:33:57.913 release of various transmitters that are

NOTE Confidence: 0.7809451

00:33:57.913 --> 00:34:00.428 involved in weight promotion promotion.

NOTE Confidence: 0.7809451

00:34:00.430 --> 00:34:02.118 Sorry, such as dopamine,

NOTE Confidence: 0.7809451

00:34:02.118 --> 00:34:04.650 noradrenaline, and ask the deal colon.

NOTE Confidence: 0.7757767

00:34:10.320 --> 00:34:12.630 The Harmony One trial compared

NOTE Confidence: 0.7757767

00:34:12.630 --> 00:34:14.940 Petola sent Modafinil and placebo

NOTE Confidence: 0.7757767

00:34:15.013 --> 00:34:16.889 in adults with narcolepsy,  
NOTE Confidence: 0.7757767

00:34:16.890 --> 00:34:19.170 with and without cataplexy.  
NOTE Confidence: 0.7757767

00:34:19.170 --> 00:34:22.020 The primary endpoint was Epworth  
NOTE Confidence: 0.7757767

00:34:22.020 --> 00:34:24.740 Sleepiness score compared to baseline  
NOTE Confidence: 0.7757767

00:34:24.740 --> 00:34:27.325 after eight weeks of treatment.  
NOTE Confidence: 0.7757767

00:34:27.330 --> 00:34:30.354 There was improvement in ESS and mean  
NOTE Confidence: 0.7757767

00:34:30.354 --> 00:34:33.578 sleep latency in MWT in all patrol  
NOTE Confidence: 0.7757767

00:34:33.578 --> 00:34:35.888 ascent groups compared to placebo.  
NOTE Confidence: 0.7757767

00:34:35.890 --> 00:34:38.530 I do have to note that Tillerson did  
NOTE Confidence: 0.7757767

00:34:38.530 --> 00:34:40.150 not demonstrate noninferiority with  
NOTE Confidence: 0.7757767

00:34:40.150 --> 00:34:42.820 respect to definitely on this trial.  
NOTE Confidence: 0.81943333

00:34:45.350 --> 00:34:46.697 A subsequent trial,  
NOTE Confidence: 0.81943333

00:34:46.697 --> 00:34:48.942 the Harmony CTP trial compared  
NOTE Confidence: 0.81943333

00:34:48.942 --> 00:34:51.849 to to listen and placebo with  
NOTE Confidence: 0.81943333

00:34:51.849 --> 00:34:54.254 the primary outcome of change,  
NOTE Confidence: 0.81943333

00:34:54.260 --> 00:34:58.010 and weekly cataplexy attacks from baseline.

NOTE Confidence: 0.81943333

00:34:58.010 --> 00:35:01.208 It included adults with narcolepsy with

NOTE Confidence: 0.81943333

00:35:01.208 --> 00:35:05.040 three or more weekly cataplexy attacks.

NOTE Confidence: 0.81943333

00:35:05.040 --> 00:35:07.056 As you can see in the figure,

NOTE Confidence: 0.81943333

00:35:07.060 --> 00:35:08.776 the patrol Ascent group in blue,

NOTE Confidence: 0.81943333

00:35:08.780 --> 00:35:11.210 in the placebo group in red.

NOTE Confidence: 0.81943333

00:35:11.210 --> 00:35:14.528 Catallus and was associated with significant

NOTE Confidence: 0.81943333

00:35:14.528 --> 00:35:17.273 improvement in cataplexy attacks compared

NOTE Confidence: 0.81943333

00:35:17.273 --> 00:35:20.479 to placebo after seven weeks of treatment.

NOTE Confidence: 0.81943333

00:35:20.480 --> 00:35:22.820 In the Petola Sync Group,

NOTE Confidence: 0.81943333

00:35:22.820 --> 00:35:24.668 the weekly cataplexy attacks

NOTE Confidence: 0.81943333

00:35:24.668 --> 00:35:27.950 went from nine point 15 to 2.27,

NOTE Confidence: 0.81943333

00:35:27.950 --> 00:35:30.940 compared to 7.31 to 4.52

NOTE Confidence: 0.81943333

00:35:30.940 --> 00:35:33.332 in the placebo group.

NOTE Confidence: 0.81943333

00:35:33.340 --> 00:35:34.972 Secondary outcomes included decrease

NOTE Confidence: 0.81943333

00:35:34.972 --> 00:35:37.012 an upward sleepiness scale and

NOTE Confidence: 0.81943333

00:35:37.012 --> 00:35:38.873 increase in mean sleep latency  
NOTE Confidence: 0.81943333

00:35:38.873 --> 00:35:40.269 in maintenance of wakefulness.  
NOTE Confidence: 0.81943333

00:35:40.270 --> 00:35:43.738 Testing in the patrol said group.  
NOTE Confidence: 0.81943333

00:35:43.740 --> 00:35:46.236 Adverse effects include insomnia,  
NOTE Confidence: 0.81943333

00:35:46.236 --> 00:35:47.480 headache, nausea,  
NOTE Confidence: 0.81943333

00:35:47.480 --> 00:35:48.720 an anxiety.  
NOTE Confidence: 0.7508433

00:35:52.190 --> 00:35:54.815 A titration schedule is usually  
NOTE Confidence: 0.7508433

00:35:54.815 --> 00:35:56.915 recommended when starting pitolisant.  
NOTE Confidence: 0.7508433

00:35:56.920 --> 00:35:59.668 You start at 8.9 milligrams upon  
NOTE Confidence: 0.7508433

00:35:59.668 --> 00:36:02.664 awakening for a week and then  
NOTE Confidence: 0.7508433

00:36:02.664 --> 00:36:04.800 increase to 17.8 milligrams.  
NOTE Confidence: 0.7508433

00:36:04.800 --> 00:36:07.516 If needed after a week you could  
NOTE Confidence: 0.7508433

00:36:07.516 --> 00:36:09.630 increase to 35.6 milligrams,  
NOTE Confidence: 0.7508433

00:36:09.630 --> 00:36:11.640 just like with Modafinil patrol  
NOTE Confidence: 0.7508433

00:36:11.640 --> 00:36:13.650 ascent may reduce the effectiveness  
NOTE Confidence: 0.7508433

00:36:13.717 --> 00:36:15.340 of hormonal contraceptives,

NOTE Confidence: 0.7508433

00:36:15.340 --> 00:36:17.530 it prolongs the cutie interval,

NOTE Confidence: 0.7508433

00:36:17.530 --> 00:36:19.942 and it is contraindicated in patients

NOTE Confidence: 0.7508433

00:36:19.942 --> 00:36:22.360 with renal and hepatic impairment.

NOTE Confidence: 0.8474007

00:36:26.610 --> 00:36:28.944 The FDA approved Solarian fatal brand

NOTE Confidence: 0.8474007

00:36:28.944 --> 00:36:32.483 names to know C for the treatment of

NOTE Confidence: 0.8474007

00:36:32.483 --> 00:36:34.868 excessive daytime sleepiness and adults

NOTE Confidence: 0.8474007

00:36:34.868 --> 00:36:38.210 with narcolepsy or obstructive sleep apnea.

NOTE Confidence: 0.8474007

00:36:38.210 --> 00:36:41.642 In March 2019, it is a dopamine and

NOTE Confidence: 0.8474007

00:36:41.642 --> 00:36:43.310 norepinephrine reuptake inhibitor.

NOTE Confidence: 0.8474007

00:36:43.310 --> 00:36:46.215 It is indicated at a once daily

NOTE Confidence: 0.8474007

00:36:46.215 --> 00:36:49.350 dose of 75 or 150 milligrams.

NOTE Confidence: 0.8474007

00:36:49.350 --> 00:36:51.670 Pawn awakening, and adverse effects

NOTE Confidence: 0.8474007

00:36:51.670 --> 00:36:53.990 of this medication include headache,

NOTE Confidence: 0.8474007

00:36:53.990 --> 00:36:55.676 decreased appetite, anxiety.

NOTE Confidence: 0.8474007

00:36:55.676 --> 00:36:57.924 Dry mouth or palpitations?

NOTE Confidence: 0.83454555

00:37:01.970 --> 00:37:05.358 In a phase three, double blind placebo  
NOTE Confidence: 0.83454555

00:37:05.358 --> 00:37:08.151 controlled trial adults with type one  
NOTE Confidence: 0.83454555

00:37:08.151 --> 00:37:10.677 and Type 2 narcolepsy were randomized  
NOTE Confidence: 0.83454555

00:37:10.677 --> 00:37:13.660 to take sorry on petola doses of  
NOTE Confidence: 0.83454555

00:37:13.660 --> 00:37:16.176 75150 or 300 milligrams or placebo.  
NOTE Confidence: 0.83454555

00:37:16.176 --> 00:37:18.744 The primary endpoints of the study  
NOTE Confidence: 0.83454555

00:37:18.744 --> 00:37:21.649 were changed compared to mean sleep  
NOTE Confidence: 0.83454555

00:37:21.649 --> 00:37:24.114 latency on maintenance of wakefulness  
NOTE Confidence: 0.83454555

00:37:24.114 --> 00:37:26.719 testing and upward sleepiness score.  
NOTE Confidence: 0.83454555

00:37:26.720 --> 00:37:29.849 There was increased in the men sleep  
NOTE Confidence: 0.83454555

00:37:29.849 --> 00:37:34.170 latency on MWT at the 150 and 300 milligram  
NOTE Confidence: 0.83454555

00:37:34.170 --> 00:37:37.150 doses of sinoussi compared to placebo.  
NOTE Confidence: 0.83454555

00:37:37.150 --> 00:37:40.234 There was also improved effort sleepiness  
NOTE Confidence: 0.83454555

00:37:40.234 --> 00:37:44.609 scores seen at all doses compared to placebo.  
NOTE Confidence: 0.83454555

00:37:44.610 --> 00:37:46.950 And there was improvement on the  
NOTE Confidence: 0.83454555

00:37:46.950 --> 00:37:48.936 clinical global impression of change

NOTE Confidence: 0.83454555

00:37:48.936 --> 00:37:51.463 score at all doses compared to placebo.

NOTE Confidence: 0.8430677

00:37:54.810 --> 00:37:57.738 Here is a summary of recommendations

NOTE Confidence: 0.8430677

00:37:57.738 --> 00:38:00.303 in adult populations for the

NOTE Confidence: 0.8430677

00:38:00.303 --> 00:38:02.435 treatment of narcolepsy from

NOTE Confidence: 0.8430677

00:38:02.435 --> 00:38:04.567 the updated ASM guidelines.

NOTE Confidence: 0.8430677

00:38:04.570 --> 00:38:06.440 As you can see, Medef,

NOTE Confidence: 0.8430677

00:38:06.440 --> 00:38:08.310 Anil Catullus and sodium oxybate,

NOTE Confidence: 0.8430677

00:38:08.310 --> 00:38:10.770 Ansel Rhian fatal are strongly recommended

NOTE Confidence: 0.8430677

00:38:10.770 --> 00:38:13.200 for the treatment of narcolepsy.

NOTE Confidence: 0.8430677

00:38:13.200 --> 00:38:16.119 The tallest and an sodium oxybate are

NOTE Confidence: 0.8430677

00:38:16.119 --> 00:38:18.500 strongly recommended to treat both

NOTE Confidence: 0.8430677

00:38:18.500 --> 00:38:21.140 excessive daytime sleepiness and cataplexy.

NOTE Confidence: 0.8430677

00:38:21.140 --> 00:38:23.060 Dextroamphetamine can also be

NOTE Confidence: 0.8430677

00:38:23.060 --> 00:38:25.460 used to treat excessive daytime

NOTE Confidence: 0.8430677

00:38:25.460 --> 00:38:26.939 sleepiness and cataplexy.

NOTE Confidence: 0.91604185



00:38:31.400 --> 00:38:34.110 Moving on to investigational drugs.  
NOTE Confidence: 0.8234988

00:38:37.540 --> 00:38:40.634 FT 218 is a controlled release formulation  
NOTE Confidence: 0.8234988

00:38:40.634 --> 00:38:43.215 of sodium oxybate which requires a  
NOTE Confidence: 0.8234988

00:38:43.215 --> 00:38:45.561 single dose at night compared to  
NOTE Confidence: 0.8234988

00:38:45.561 --> 00:38:48.388 the two dose regimen currently used.  
NOTE Confidence: 0.8234988

00:38:48.390 --> 00:38:50.874 The rest on trial assessed safety  
NOTE Confidence: 0.8234988

00:38:50.874 --> 00:38:54.209 and efficacy of FT 218 and treatment  
NOTE Confidence: 0.8234988

00:38:54.209 --> 00:38:56.341 of excessive daytime sleepiness  
NOTE Confidence: 0.8234988

00:38:56.341 --> 00:38:58.900 and cataplexy and narcolepsy.  
NOTE Confidence: 0.8234988

00:38:58.900 --> 00:39:01.570 Patients received FT 218 at  
NOTE Confidence: 0.8234988

00:39:01.570 --> 00:39:05.084 doses of 4.5 grams, 6 grams,  
NOTE Confidence: 0.8234988

00:39:05.084 --> 00:39:09.206 7.5 grams, 9 grams or placebo.  
NOTE Confidence: 0.8234988

00:39:09.210 --> 00:39:11.718 There was an increase in sleep  
NOTE Confidence: 0.8234988

00:39:11.718 --> 00:39:14.080 latency in MWT and the FT.  
NOTE Confidence: 0.8234988

00:39:14.080 --> 00:39:16.780 218 groups compared to placebo.  
NOTE Confidence: 0.8234988

00:39:16.780 --> 00:39:18.565 The mean weekly cataplexy attacks

NOTE Confidence: 0.8234988

00:39:18.565 --> 00:39:20.750 were reduced in the treatment group,

NOTE Confidence: 0.8234988

00:39:20.750 --> 00:39:22.748 and there was improvement in clinical

NOTE Confidence: 0.8234988

00:39:22.748 --> 00:39:24.538 status assessed by the clinical

NOTE Confidence: 0.8234988

00:39:24.538 --> 00:39:26.528 global impression of change scale.

NOTE Confidence: 0.8234988

00:39:26.530 --> 00:39:28.582 It has been granted orphan drug

NOTE Confidence: 0.8234988

00:39:28.582 --> 00:39:30.391 designation from the FDA for

NOTE Confidence: 0.8234988

00:39:30.391 --> 00:39:32.256 treatment of narcolepsy and is

NOTE Confidence: 0.8234988

00:39:32.256 --> 00:39:33.748 pending full FDA approval.

NOTE Confidence: 0.83349127

00:39:37.100 --> 00:39:38.900 Reboxetine which is not

NOTE Confidence: 0.83349127

00:39:38.900 --> 00:39:41.150 approved in the United States,

NOTE Confidence: 0.83349127

00:39:41.150 --> 00:39:43.230 is a norepinephrine reuptake

NOTE Confidence: 0.83349127

00:39:43.230 --> 00:39:44.790 inhibitor originally developed

NOTE Confidence: 0.83349127

00:39:44.790 --> 00:39:47.180 for treatment of depression.

NOTE Confidence: 0.83349127

00:39:47.180 --> 00:39:50.309 The concert trial was conducted in the

NOTE Confidence: 0.83349127

00:39:50.309 --> 00:39:54.094 US in 2019, looking at reboxetine for

NOTE Confidence: 0.83349127

00:39:54.094 --> 00:39:57.149 treatment of cataplexy in narcolepsy.  
NOTE Confidence: 0.83349127

00:39:57.150 --> 00:39:59.510 21 patients with narcolepsy type.  
NOTE Confidence: 0.83349127

00:39:59.510 --> 00:40:02.570 One received reboxetine for two weeks  
NOTE Confidence: 0.83349127

00:40:02.570 --> 00:40:06.262 and placebo for two weeks separated by  
NOTE Confidence: 0.83349127

00:40:06.262 --> 00:40:09.895 one week of down titration and washout.  
NOTE Confidence: 0.83349127

00:40:09.900 --> 00:40:12.204 There was a significant reduction of  
NOTE Confidence: 0.83349127

00:40:12.204 --> 00:40:14.900 cataplexy attacks per week in the reboxetine.  
NOTE Confidence: 0.83349127

00:40:14.900 --> 00:40:15.416 Group.  
NOTE Confidence: 0.83349127

00:40:15.416 --> 00:40:17.480 There was significantly improved  
NOTE Confidence: 0.83349127

00:40:17.480 --> 00:40:19.028 excessive daytime sleepiness  
NOTE Confidence: 0.83349127

00:40:19.028 --> 00:40:20.780 symptoms compared to placebo,  
NOTE Confidence: 0.83349127

00:40:20.780 --> 00:40:22.520 as measured by upward sleepiness  
NOTE Confidence: 0.83349127

00:40:22.520 --> 00:40:24.822 for an 5 frequency of inadvertent  
NOTE Confidence: 0.83349127

00:40:24.822 --> 00:40:27.292 naps and there was improved  
NOTE Confidence: 0.83349127

00:40:27.292 --> 00:40:28.774 cognitive cognitive function.  
NOTE Confidence: 0.83349127

00:40:28.780 --> 00:40:30.312 Improve sleep quality production,

NOTE Confidence: 0.83349127

00:40:30.312 --> 00:40:31.844 and sleep paralysis episodes

NOTE Confidence: 0.83349127

00:40:31.844 --> 00:40:33.410 and hypnagogic hallucinations.

NOTE Confidence: 0.831818410526315

00:40:37.030 --> 00:40:39.170 Other drugs being investigated.

NOTE Confidence: 0.831818410526315

00:40:39.170 --> 00:40:42.380 The combination of Modafinil and flecainide

NOTE Confidence: 0.831818410526315

00:40:42.453 --> 00:40:45.268 for excessive daytime sleepiness in

NOTE Confidence: 0.831818410526315

00:40:45.268 --> 00:40:47.520 narcolepsy and Parkinson's disease.

NOTE Confidence: 0.831818410526315

00:40:47.520 --> 00:40:49.752 The antiarrhythmic flecainide enhances

NOTE Confidence: 0.831818410526315

00:40:49.752 --> 00:40:53.100 wake promoting effects of Modafinil through

NOTE Confidence: 0.831818410526315

00:40:53.171 --> 00:40:55.687 inhibition of astroglial connections.

NOTE Confidence: 0.831818410526315

00:40:55.690 --> 00:40:58.792 Some melicent which is a histamine

NOTE Confidence: 0.831818410526315

00:40:58.792 --> 00:41:00.860 three receptor inverse agonist,

NOTE Confidence: 0.831818410526315

00:41:00.860 --> 00:41:04.060 has demonstrated wake promoting an

NOTE Confidence: 0.831818410526315

00:41:04.060 --> 00:41:08.160 anti cat affective effects in rodents.

NOTE Confidence: 0.831818410526315

00:41:08.160 --> 00:41:10.450 And there are two hypocretin,

NOTE Confidence: 0.831818410526315

00:41:10.450 --> 00:41:12.440 two receptor selective agonist Tak

NOTE Confidence: 0.831818410526315

00:41:12.440 --> 00:41:14.983 925 with which is a subcutaneous  
NOTE Confidence: 0.831818410526315

00:41:14.983 --> 00:41:17.857 preparation and tag 994 which is  
NOTE Confidence: 0.831818410526315

00:41:17.857 --> 00:41:20.806 an oral preparation that have shown  
NOTE Confidence: 0.831818410526315

00:41:20.806 --> 00:41:23.201 to increase wakefulness and reduce  
NOTE Confidence: 0.831818410526315

00:41:23.201 --> 00:41:25.980 cataplexy like episodes in mouse models.  
NOTE Confidence: 0.76369166

00:41:29.590 --> 00:41:34.086 So going back to my patient Miss Ma.  
NOTE Confidence: 0.76369166

00:41:34.090 --> 00:41:37.090 I decided to prescribe it to listen for  
NOTE Confidence: 0.76369166

00:41:37.090 --> 00:41:39.549 excessive daytime sleepiness and cataplexy,  
NOTE Confidence: 0.76369166

00:41:39.550 --> 00:41:43.766 as she was leery of starting sodium oxybate.  
NOTE Confidence: 0.76369166

00:41:43.770 --> 00:41:44.898 I initially prescribed  
NOTE Confidence: 0.76369166

00:41:44.898 --> 00:41:46.778 methylphenidate and asked her to  
NOTE Confidence: 0.76369166

00:41:46.778 --> 00:41:48.620 continue with her scheduled naps.  
NOTE Confidence: 0.76369166

00:41:48.620 --> 00:41:52.430 While we waited for insurance approval.  
NOTE Confidence: 0.76369166

00:41:52.430 --> 00:41:54.162 This drug, of course,  
NOTE Confidence: 0.76369166

00:41:54.162 --> 00:41:56.327 was denied by insurance and  
NOTE Confidence: 0.76369166

00:41:56.327 --> 00:41:58.470 after lengthy discussions she

NOTE Confidence: 0.76369166

00:41:58.470 --> 00:42:01.180 agreed to start sodium oxybate.

NOTE Confidence: 0.76369166

00:42:01.180 --> 00:42:06.220 She was titrated to 3.75 grams twice nightly.

NOTE Confidence: 0.76369166

00:42:06.220 --> 00:42:08.352 And her upward sleepiness

NOTE Confidence: 0.76369166

00:42:08.352 --> 00:42:11.550 scale went from 19 to 5.

NOTE Confidence: 0.76369166

00:42:11.550 --> 00:42:13.054 For weekly cataplexy attacks

NOTE Confidence: 0.76369166

00:42:13.054 --> 00:42:15.730 that were seven to 10 per week.

NOTE Confidence: 0.76369166

00:42:15.730 --> 00:42:18.670 Where is zero in two months?

NOTE Confidence: 0.76369166

00:42:18.670 --> 00:42:20.872 She rarely needs to nap during

NOTE Confidence: 0.76369166

00:42:20.872 --> 00:42:23.329 the day she is in college.

NOTE Confidence: 0.76369166

00:42:23.330 --> 00:42:25.646 She plays softball and does trap.

NOTE Confidence: 0.76369166

00:42:25.650 --> 00:42:28.212 She is now able to attend more

NOTE Confidence: 0.76369166

00:42:28.212 --> 00:42:29.920 family and social events.

NOTE Confidence: 0.91140926

00:42:32.780 --> 00:42:35.508 I would like to finish with a couple

NOTE Confidence: 0.91140926

00:42:35.508 --> 00:42:38.207 of take home points to summarize.

NOTE Confidence: 0.91140926

00:42:38.210 --> 00:42:40.335 Although the cause of narcolepsy

NOTE Confidence: 0.91140926

00:42:40.335 --> 00:42:42.035 is not completely understood,  
NOTE Confidence: 0.91140926

00:42:42.040 --> 00:42:44.570 it is increasingly evident that  
NOTE Confidence: 0.91140926

00:42:44.570 --> 00:42:47.100 it is an autoimmune disease.  
NOTE Confidence: 0.91140926

00:42:47.100 --> 00:42:51.790 The search for characteristic. I'm sorry.  
NOTE Confidence: 0.87515706

00:42:56.620 --> 00:42:59.585 The search for characteristic narcolepsy  
NOTE Confidence: 0.87515706

00:42:59.585 --> 00:43:03.209 autoantibodies has not been successful with  
NOTE Confidence: 0.87515706

00:43:03.209 --> 00:43:06.089 no autoantibodies consistently found yet.  
NOTE Confidence: 0.9423355

00:43:12.720 --> 00:43:14.170 I apologize.  
NOTE Confidence: 0.89262474

00:43:22.000 --> 00:43:23.660 Can everybody see my screen?  
NOTE Confidence: 0.83156335

00:43:30.350 --> 00:43:32.210 Yeah, but the slide is frozen.  
NOTE Confidence: 0.83156335

00:43:33.200 --> 00:43:37.330 OK. Can you see it now?  
NOTE Confidence: 0.83156335

00:43:37.330 --> 00:43:41.206 Yep, Yep Yep, OK, thank you.  
NOTE Confidence: 0.83156335

00:43:41.210 --> 00:43:43.440 But delay in diagnosis or  
NOTE Confidence: 0.83156335

00:43:43.440 --> 00:43:45.224 misdiagnosis may occur with  
NOTE Confidence: 0.83156335

00:43:45.224 --> 00:43:47.459 significant consequences to patients.  
NOTE Confidence: 0.9073099

00:43:50.190 --> 00:43:52.318 And the goal of treatment should be

NOTE Confidence: 0.9073099

00:43:52.318 --> 00:43:54.576 to produce the fullest possible return

NOTE Confidence: 0.9073099

00:43:54.576 --> 00:43:56.706 of normal function for patients.

NOTE Confidence: 0.90446585

00:43:59.030 --> 00:44:01.005 Although tremendous progress has been

NOTE Confidence: 0.90446585

00:44:01.005 --> 00:44:03.750 made in the treatment of narcolepsy,

NOTE Confidence: 0.90446585

00:44:03.750 --> 00:44:06.150 it still remains symptomatic and there

NOTE Confidence: 0.90446585

00:44:06.150 --> 00:44:09.758 is so much to learn about this disease.

NOTE Confidence: 0.8119724

00:44:11.840 --> 00:44:13.922 I want to thank Doctor Mosen

NOTE Confidence: 0.8119724

00:44:13.922 --> 00:44:16.074 in for encouraging me to take

NOTE Confidence: 0.8119724

00:44:16.074 --> 00:44:17.809 this patient under my care.

NOTE Confidence: 0.8119724

00:44:17.810 --> 00:44:19.214 Ann for precepting me

NOTE Confidence: 0.8119724

00:44:19.214 --> 00:44:20.618 during her initial visit,

NOTE Confidence: 0.8119724

00:44:20.620 --> 00:44:22.830 Doctor Tapawai consulted multiple times

NOTE Confidence: 0.8119724

00:44:22.830 --> 00:44:24.598 when making management decisions.

NOTE Confidence: 0.8119724

00:44:24.600 --> 00:44:26.202 As well as Doctor Tobias and

NOTE Confidence: 0.8119724

00:44:26.202 --> 00:44:27.973 Doctor Miner who gave me advice

NOTE Confidence: 0.8119724



00:44:27.973 --> 00:44:29.578 when putting together this talk.

NOTE Confidence: 0.8119724

00:44:29.580 --> 00:44:31.050 And of course Miss Ma,

NOTE Confidence: 0.8119724

00:44:31.050 --> 00:44:33.325 who allowed me to care for her

NOTE Confidence: 0.8119724

00:44:33.325 --> 00:44:35.439 and learn so much from her.

NOTE Confidence: 0.8119724

00:44:35.440 --> 00:44:36.140 Thank you.

NOTE Confidence: 0.85701376

00:44:50.660 --> 00:44:52.616 I'd be happy to take any

NOTE Confidence: 0.85701376

00:44:52.620 --> 00:44:54.250 questions if there are so.

NOTE Confidence: 0.85701376

00:44:54.250 --> 00:44:55.550 Are there any questions?

NOTE Confidence: 0.85701376

00:44:55.550 --> 00:44:56.525 Let's see there's.

NOTE Confidence: 0.85701376

00:44:56.530 --> 00:45:00.390 I think there's something in the chat.

NOTE Confidence: 0.85701376

00:45:00.390 --> 00:45:06.480 I have one there overheat high. Go ahead,

NOTE Confidence: 0.8150497

00:45:06.480 --> 00:45:08.470 OK. I thought the chat

NOTE Confidence: 0.8150497

00:45:08.470 --> 00:45:10.425 questions will be covered.

NOTE Confidence: 0.8150497

00:45:10.425 --> 00:45:13.110 Then there was a terrific presentation

NOTE Confidence: 0.8150497

00:45:13.110 --> 00:45:15.540 on a coverage of the whole.

NOTE Confidence: 0.8150497

00:45:15.540 --> 00:45:18.130 Field, including the new one.

NOTE Confidence: 0.8150497

00:45:18.130 --> 00:45:20.298 Drugs around the corner.

NOTE Confidence: 0.8150497

00:45:20.298 --> 00:45:23.008 Could you comment on the

NOTE Confidence: 0.8150497

00:45:23.008 --> 00:45:24.438 sensitivity of MSL T?

NOTE Confidence: 0.8150497

00:45:24.440 --> 00:45:28.320 As you know, it's is the gold standard,

NOTE Confidence: 0.8150497

00:45:28.320 --> 00:45:30.740 but then has issues with

NOTE Confidence: 0.8150497

00:45:30.740 --> 00:45:32.676 perhaps false negative results.

NOTE Confidence: 0.8150497

00:45:32.680 --> 00:45:37.045 And how do you handle those type of cases?

NOTE Confidence: 0.86430895

00:45:37.860 --> 00:45:40.415 Yeah, it's it's really kind of I.

NOTE Confidence: 0.86430895

00:45:40.420 --> 00:45:42.406 I can't remember off the top

NOTE Confidence: 0.86430895

00:45:42.406 --> 00:45:44.987 of my head the exact number in

NOTE Confidence: 0.86430895

00:45:44.987 --> 00:45:47.345 terms of sensitivity of MSL T,

NOTE Confidence: 0.86430895

00:45:47.350 --> 00:45:49.905 but it's really not a great test.

NOTE Confidence: 0.86430895

00:45:49.910 --> 00:45:53.158 You have to take into account the whole

NOTE Confidence: 0.86430895

00:45:53.158 --> 00:45:55.708 clinical context and also be sure to

NOTE Confidence: 0.86430895

00:45:55.708 --> 00:45:58.132 rule out other reasons why we could

NOTE Confidence: 0.86430895

00:45:58.132 --> 00:46:00.512 have MSL T findings that could give  
NOTE Confidence: 0.86430895

00:46:00.512 --> 00:46:04.290 us a false positive for narcolepsy.  
NOTE Confidence: 0.86430895

00:46:04.290 --> 00:46:06.258 Things like sleep deprivation,  
NOTE Confidence: 0.86430895

00:46:06.258 --> 00:46:08.718 medications and substances could kind  
NOTE Confidence: 0.86430895

00:46:08.718 --> 00:46:11.357 of taint the results of the MSLT,  
NOTE Confidence: 0.86430895

00:46:11.360 --> 00:46:14.896 so it's really not a great break test.  
NOTE Confidence: 0.86430895

00:46:14.900 --> 00:46:18.065 It's important to take everything  
NOTE Confidence: 0.86430895

00:46:18.065 --> 00:46:20.597 else into clinical context.  
NOTE Confidence: 0.86430895

00:46:20.600 --> 00:46:21.030 Yeah,  
NOTE Confidence: 0.856885299999999

00:46:21.030 --> 00:46:23.034 it's sometimes difficult to  
NOTE Confidence: 0.856885299999999

00:46:23.034 --> 00:46:25.539 differentiate type two with the  
NOTE Confidence: 0.856885299999999

00:46:25.539 --> 00:46:27.494 idiopathic hypersomnia if there may  
NOTE Confidence: 0.856885299999999

00:46:27.494 --> 00:46:30.920 be a lot of overlaps as far as their  
NOTE Confidence: 0.856885299999999

00:46:30.920 --> 00:46:33.070 presentation sensitivity for MSL T,  
NOTE Confidence: 0.856885299999999

00:46:33.070 --> 00:46:35.650 the first time is around 70%,  
NOTE Confidence: 0.856885299999999

00:46:35.650 --> 00:46:39.090 so you tend to get like 30% negative

NOTE Confidence: 0.856885299999999

00:46:39.090 --> 00:46:42.100 or could be false negative rate, which

NOTE Confidence: 0.8568853

00:46:42.100 --> 00:46:43.820 is a pretty significant

NOTE Confidence: 0.8568853

00:46:43.820 --> 00:46:47.430 number, you know, yeah.

NOTE Confidence: 0.8492221

00:46:47.430 --> 00:46:49.158 That was a great

NOTE Confidence: 0.8492221

00:46:49.160 --> 00:46:50.888 talk. Glenda, thank you.

NOTE Confidence: 0.8492221

00:46:50.890 --> 00:46:53.050 Thank you. Yeah. So Glenda,

NOTE Confidence: 0.8492221

00:46:53.050 --> 00:46:55.636 we frequently see in in clinics,

NOTE Confidence: 0.8492221

00:46:55.640 --> 00:46:58.657 patients who are in their early 20s.

NOTE Confidence: 0.8492221

00:46:58.660 --> 00:47:01.246 They look like they have narcolepsy.

NOTE Confidence: 0.8492221

00:47:01.250 --> 00:47:04.379 They give a great history but they

NOTE Confidence: 0.8492221

00:47:04.379 --> 00:47:06.544 are on antidepressants and when

NOTE Confidence: 0.8492221

00:47:06.544 --> 00:47:09.127 we study them with an MSLT the

NOTE Confidence: 0.8492221

00:47:09.127 --> 00:47:11.891 results do not support a diagnosis

NOTE Confidence: 0.8492221

00:47:11.891 --> 00:47:13.743 of narcolepsy because they're

NOTE Confidence: 0.8492221

00:47:13.743 --> 00:47:17.030 on our REM suppressing agent.

NOTE Confidence: 0.8492221

00:47:17.030 --> 00:47:18.728 How do you think we should  
NOTE Confidence: 0.8492221

00:47:18.728 --> 00:47:19.860 handle patients like that?  
NOTE Confidence: 0.895783814285714

00:47:21.210 --> 00:47:24.409 Well, I mean. Like I mentioned always,  
NOTE Confidence: 0.895783814285714

00:47:24.410 --> 00:47:26.426 ideally in an ideal world we would  
NOTE Confidence: 0.895783814285714

00:47:26.426 --> 00:47:28.650 have them stop their antidepressants,  
NOTE Confidence: 0.895783814285714

00:47:28.650 --> 00:47:33.090 but we know that that's not always possible.  
NOTE Confidence: 0.895783814285714

00:47:33.090 --> 00:47:35.988 I do think that the clinical  
NOTE Confidence: 0.895783814285714

00:47:35.988 --> 00:47:37.920 history is very important.  
NOTE Confidence: 0.895783814285714

00:47:37.920 --> 00:47:40.524 If there's any question about a difference  
NOTE Confidence: 0.895783814285714

00:47:40.524 --> 00:47:43.087 between type one and Type 2 narcolepsy,  
NOTE Confidence: 0.895783814285714

00:47:43.090 --> 00:47:44.194 measuring CSF hypocretin  
NOTE Confidence: 0.895783814285714

00:47:44.194 --> 00:47:45.666 levels might be useful,  
NOTE Confidence: 0.895783814285714

00:47:45.670 --> 00:47:49.495 but I do think that the most important thing  
NOTE Confidence: 0.895783814285714

00:47:49.495 --> 00:47:53.449 is to try to manage the patient symptoms.  
NOTE Confidence: 0.895783814285714

00:47:53.450 --> 00:47:55.460 If the patient is presenting with  
NOTE Confidence: 0.895783814285714

00:47:55.460 --> 00:47:56.465 excessive daytime sleepiness,

NOTE Confidence: 0.895783814285714  
00:47:56.470 --> 00:47:58.140 of course using a wake  
NOTE Confidence: 0.895783814285714  
00:47:58.140 --> 00:47:59.476 promoting agent and then,  
NOTE Confidence: 0.895783814285714  
00:47:59.480 --> 00:48:00.344 like I mentioned,  
NOTE Confidence: 0.895783814285714  
00:48:00.344 --> 00:48:02.072 it may be helpful to check  
NOTE Confidence: 0.895783814285714  
00:48:02.072 --> 00:48:03.500 CSF hypocretin levels.  
NOTE Confidence: 0.85464007  
00:48:04.970 --> 00:48:08.642 OK, so does any. Are there any other  
NOTE Confidence: 0.85464007  
00:48:08.642 --> 00:48:11.180 questions that that people have?  
NOTE Confidence: 0.8233188  
00:48:14.110 --> 00:48:16.990 Hi this is a in where I put a question  
NOTE Confidence: 0.8233188  
00:48:17.066 --> 00:48:19.866 in the talk but I was just wondering.  
NOTE Confidence: 0.8233188  
00:48:19.870 --> 00:48:22.570 I haven't had a chance to read the new  
NOTE Confidence: 0.8233188  
00:48:22.570 --> 00:48:24.350 guidelines that came out recently,  
NOTE Confidence: 0.8233188  
00:48:24.350 --> 00:48:26.450 but I see that armor Daffodil is  
NOTE Confidence: 0.8233188  
00:48:26.450 --> 00:48:27.746 a conditional recommendation and  
NOTE Confidence: 0.8233188  
00:48:27.746 --> 00:48:29.466 monophony Liz a strong recommendation.  
NOTE Confidence: 0.8233188  
00:48:29.470 --> 00:48:32.030 Did they talk about why and the guidelines?  
NOTE Confidence: 0.8233188

00:48:32.030 --> 00:48:33.630 They separated those two medicines  
NOTE Confidence: 0.8233188

00:48:33.630 --> 00:48:35.230 out and one was strong.  
NOTE Confidence: 0.8233188

00:48:35.230 --> 00:48:37.470 This woman was like a week or  
NOTE Confidence: 0.8233188

00:48:37.470 --> 00:48:38.110 conditional recommendation.  
NOTE Confidence: 0.8233188

00:48:38.110 --> 00:48:40.030 You know what Doctor we are?  
NOTE Confidence: 0.8233188

00:48:40.030 --> 00:48:41.970 I would really have to  
NOTE Confidence: 0.8233188

00:48:41.970 --> 00:48:44.480 get back to you on that.  
NOTE Confidence: 0.8233188

00:48:44.480 --> 00:48:47.099 I did not see like why they would have,  
NOTE Confidence: 0.8233188

00:48:47.100 --> 00:48:48.550 you know, made that difference,  
NOTE Confidence: 0.8233188

00:48:48.550 --> 00:48:50.005 but yes, Ma definitely had  
NOTE Confidence: 0.8233188

00:48:50.005 --> 00:48:50.878 a strong recommendation.  
NOTE Confidence: 0.8233188

00:48:50.880 --> 00:48:52.854 I was going to have to get  
NOTE Confidence: 0.8233188

00:48:52.854 --> 00:48:54.669 back to you on that one.  
NOTE Confidence: 0.8233188

00:48:54.670 --> 00:48:56.120 Yeah, it's probably 'cause there's  
NOTE Confidence: 0.84397614

00:48:56.120 --> 00:48:57.866 just. I would imagine there's just  
NOTE Confidence: 0.84397614

00:48:57.866 --> 00:48:59.903 not as much information, but you know,

NOTE Confidence: 0.84397614

00:48:59.903 --> 00:49:02.480 usually what we do is, you know, we have.

NOTE Confidence: 0.84397614

00:49:02.480 --> 00:49:04.640 If we're going to use Medaugh alarm adapter

NOTE Confidence: 0.84397614

00:49:04.702 --> 00:49:06.886 will have a conversation with the patient,

NOTE Confidence: 0.84397614

00:49:06.890 --> 00:49:08.340 will talk about the advantage,

NOTE Confidence: 0.84397614

00:49:08.340 --> 00:49:09.800 disadvantage of having the opportunity

NOTE Confidence: 0.84397614

00:49:09.800 --> 00:49:12.033 to take that dose at noon and and

NOTE Confidence: 0.84397614

00:49:12.033 --> 00:49:13.461 some people just want take one

NOTE Confidence: 0.84397614

00:49:13.461 --> 00:49:15.432 pill and so just interesting 'cause

NOTE Confidence: 0.84397614

00:49:15.432 --> 00:49:16.776 that potentially could change.

NOTE Confidence: 0.84397614

00:49:16.780 --> 00:49:18.350 You know you would maybe.

NOTE Confidence: 0.84397614

00:49:18.350 --> 00:49:21.386 Say OK because of that recommendation

NOTE Confidence: 0.84397614

00:49:21.386 --> 00:49:24.822 we should be using more of a

NOTE Confidence: 0.84397614

00:49:24.822 --> 00:49:26.578 daffodil as the primary.

NOTE Confidence: 0.84397614

00:49:26.580 --> 00:49:28.260 Treatment if needed to be

NOTE Confidence: 0.84397614

00:49:28.260 --> 00:49:29.604 made for promoting medication.

NOTE Confidence: 0.84397614



00:49:29.610 --> 00:49:30.618 So just curious.  
NOTE Confidence: 0.800938

00:49:30.620 --> 00:49:32.642 Yeah, and I don't know when  
NOTE Confidence: 0.800938

00:49:32.642 --> 00:49:33.653 you're anxious parent.  
NOTE Confidence: 0.800938

00:49:33.660 --> 00:49:36.348 In my vast one year sleep fellow experience.  
NOTE Confidence: 0.800938

00:49:36.350 --> 00:49:38.562 Usually I find that patients have more  
NOTE Confidence: 0.800938

00:49:38.562 --> 00:49:40.399 headaches on Modafinil and armodafinil,  
NOTE Confidence: 0.800938

00:49:40.400 --> 00:49:42.759 so I don't know if that's if  
NOTE Confidence: 0.800938

00:49:42.759 --> 00:49:44.706 you've seen that. But yes, I'm.  
NOTE Confidence: 0.800938

00:49:44.706 --> 00:49:46.890 It's probably because there is lack of  
NOTE Confidence: 0.800938

00:49:46.950 --> 00:49:49.626 evidence for Arma definite that the  
NOTE Confidence: 0.800938

00:49:49.626 --> 00:49:51.300 recommendation was conditional. Yeah,  
NOTE Confidence: 0.81212157

00:49:51.300 --> 00:49:53.165 I've seen it. Probably just  
NOTE Confidence: 0.81212157

00:49:53.165 --> 00:49:54.657 anecdotally about equally between  
NOTE Confidence: 0.81212157

00:49:54.657 --> 00:49:56.527 the two and most of the time.  
NOTE Confidence: 0.81212157

00:49:56.530 --> 00:49:59.464 If they can plow through a week of treatment,  
NOTE Confidence: 0.81212157

00:49:59.470 --> 00:50:01.110 usually the headaches with inside,

NOTE Confidence: 0.81212157

00:50:01.110 --> 00:50:03.318 so I kind of encourage them to continue

NOTE Confidence: 0.81212157

00:50:03.318 --> 00:50:05.790 for at least two weeks before they

NOTE Confidence: 0.81212157

00:50:05.790 --> 00:50:07.650 completely give up the medication,

NOTE Confidence: 0.81212157

00:50:07.650 --> 00:50:09.280 because the headaches but that,

NOTE Confidence: 0.81212157

00:50:09.280 --> 00:50:10.261 as you mentioned,

NOTE Confidence: 0.81212157

00:50:10.261 --> 00:50:12.550 that is a very common side effect

NOTE Confidence: 0.81212157

00:50:12.550 --> 00:50:14.190 with both of those pills.

NOTE Confidence: 0.81212157

00:50:14.190 --> 00:50:16.272 Yeah, yeah, it seems that Modafinil

NOTE Confidence: 0.81212157

00:50:16.272 --> 00:50:17.660 gives patients more flexibility

NOTE Confidence: 0.81212157

00:50:17.712 --> 00:50:19.700 as far as dosing as opposed to

NOTE Confidence: 0.81212157

00:50:19.700 --> 00:50:21.130 armodafinil there almost identical.

NOTE Confidence: 0.81212157

00:50:21.130 --> 00:50:23.290 Medications, as far as their

NOTE Confidence: 0.81212157

00:50:23.290 --> 00:50:25.450 efficacy adjust the dose dependency

NOTE Confidence: 0.81212157

00:50:25.526 --> 00:50:27.689 so it's once you take the armor,

NOTE Confidence: 0.81212157

00:50:27.690 --> 00:50:29.655 definitely don't want to take

NOTE Confidence: 0.81212157

00:50:29.655 --> 00:50:32.055 the second dose because of the  
NOTE Confidence: 0.81212157

00:50:32.055 --> 00:50:34.271 longer acting nature of it, so,  
NOTE Confidence: 0.81212157

00:50:34.271 --> 00:50:36.677 but definitely will be maybe a  
NOTE Confidence: 0.81212157

00:50:36.677 --> 00:50:38.306 good starting medications and  
NOTE Confidence: 0.81212157

00:50:38.306 --> 00:50:40.424 then perhaps switch over to Arma.  
NOTE Confidence: 0.81212157

00:50:40.430 --> 00:50:42.746 Definitely if they need consistently two  
NOTE Confidence: 0.8370598

00:50:42.750 --> 00:50:44.470 dosing per day. Yeah,  
NOTE Confidence: 0.8370598

00:50:44.470 --> 00:50:47.050 so the the the original clinical  
NOTE Confidence: 0.8370598

00:50:47.136 --> 00:50:49.922 trials done in in the US which  
NOTE Confidence: 0.8370598

00:50:49.922 --> 00:50:52.079 led to registration by the FDA.  
NOTE Confidence: 0.8370598

00:50:52.080 --> 00:50:54.803 The dosage was 400 milligrams of Modafinil  
NOTE Confidence: 0.8370598

00:50:54.803 --> 00:50:57.529 and one shot in in in the morning.  
NOTE Confidence: 0.8370598

00:50:57.530 --> 00:50:59.696 In the rest of the world.  
NOTE Confidence: 0.8370598

00:50:59.700 --> 00:51:01.878 They didn't do that, it was,  
NOTE Confidence: 0.8370598

00:51:01.880 --> 00:51:04.414 it was sort of a BID thing.  
NOTE Confidence: 0.8370598

00:51:04.420 --> 00:51:06.954 Half of the dose in the morning,

NOTE Confidence: 0.8370598

00:51:06.960 --> 00:51:08.780 half the dosage at lunchtime,

NOTE Confidence: 0.8370598

00:51:08.780 --> 00:51:11.676 and that seems to actually work fairly well.

NOTE Confidence: 0.8370598

00:51:11.680 --> 00:51:13.858 And just like Doctor Motion and

NOTE Confidence: 0.8370598

00:51:13.858 --> 00:51:15.676 just mentioned, patients are able

NOTE Confidence: 0.8370598

00:51:15.676 --> 00:51:17.486 to titrate themselves that way.

NOTE Confidence: 0.8370598

00:51:17.490 --> 00:51:18.986 And sometimes they'll be.

NOTE Confidence: 0.8370598

00:51:18.986 --> 00:51:22.368 They'll be able to take 200 in the morning.

NOTE Confidence: 0.8370598

00:51:22.370 --> 00:51:24.974 100 lunchtime and maybe even another

NOTE Confidence: 0.8370598

00:51:24.974 --> 00:51:28.408 hundred at you know 4-5 o'clock in the

NOTE Confidence: 0.8370598

00:51:28.408 --> 00:51:31.247 evening if they're gonna be going to

NOTE Confidence: 0.8370598

00:51:31.247 --> 00:51:33.736 a concert or driving in the evening,

NOTE Confidence: 0.8370598

00:51:33.736 --> 00:51:36.576 so Modafinil gives a lot more flexibility.

NOTE Confidence: 0.88766396

00:51:38.220 --> 00:51:39.648 I have a question.

NOTE Confidence: 0.85349786

00:51:40.860 --> 00:51:42.920 So how do you

NOTE Confidence: 0.85349786

00:51:42.920 --> 00:51:44.468 know how and

NOTE Confidence: 0.8408915525

00:51:44.470 --> 00:51:48.016 why the the? The app, the mean  
NOTE Confidence: 0.8408915525

00:51:48.016 --> 00:51:50.190 sleep latency for the Ms Lt  
NOTE Confidence: 0.80307263

00:51:50.190 --> 00:51:55.000 was said at 8 minutes. How and why  
NOTE Confidence: 0.8954228

00:51:55.000 --> 00:51:57.529 that was chosen?  
NOTE Confidence: 0.8954228

00:51:57.530 --> 00:51:59.840 And I always think about a  
NOTE Confidence: 0.8954228

00:51:59.840 --> 00:52:00.998 term pathologic sleeping.  
NOTE Confidence: 0.8954228

00:52:01.000 --> 00:52:03.692 This is being less than five minutes.  
NOTE Confidence: 0.8954228

00:52:03.692 --> 00:52:04.850 Does anybody use  
NOTE Confidence: 0.8584739

00:52:04.850 --> 00:52:06.005 that term? Well,  
NOTE Confidence: 0.8584739

00:52:06.005 --> 00:52:08.700 it used to be less than five,  
NOTE Confidence: 0.8584739

00:52:08.700 --> 00:52:11.542 and it turns out that most narcolepsy  
NOTE Confidence: 0.8584739

00:52:11.542 --> 00:52:14.468 patients are like way less than five an.  
NOTE Confidence: 0.8584739

00:52:14.470 --> 00:52:17.550 I don't recall why it went to 8,  
NOTE Confidence: 0.8584739

00:52:17.550 --> 00:52:20.630 but it suddenly went to 8 from 5.  
NOTE Confidence: 0.8584739

00:52:20.630 --> 00:52:22.940 Ann and Ann. I don't remember  
NOTE Confidence: 0.8584739

00:52:22.940 --> 00:52:25.250 the reason for it. I think

NOTE Confidence: 0.8584739

00:52:25.250 --> 00:52:27.560 it's because of the balance between

NOTE Confidence: 0.8584739

00:52:27.560 --> 00:52:29.100 the sensitivity and specificity,

NOTE Confidence: 0.8584739

00:52:29.100 --> 00:52:30.363 because if you.

NOTE Confidence: 0.8584739

00:52:30.363 --> 00:52:34.018 If you if you decrease it to five minutes,

NOTE Confidence: 0.8584739

00:52:34.020 --> 00:52:36.288 it's going to be more specific,

NOTE Confidence: 0.8584739

00:52:36.290 --> 00:52:38.222 but much less sensitive.

NOTE Confidence: 0.8584739

00:52:38.222 --> 00:52:41.120 And so the specificity of the

NOTE Confidence: 0.8584739

00:52:41.217 --> 00:52:43.500 test is like 95% the sensitivity

NOTE Confidence: 0.8584739

00:52:43.500 --> 00:52:48.000 is more like 70 to 80% so.

NOTE Confidence: 0.8584739

00:52:48.000 --> 00:52:50.375 You know combining those two

NOTE Confidence: 0.8584739

00:52:50.375 --> 00:52:53.400 features with those two numbers makes

NOTE Confidence: 0.8584739

00:52:53.400 --> 00:52:56.200 it most sensitive and specific.

NOTE Confidence: 0.8584739

00:52:56.200 --> 00:52:58.188 That's the reason, so

NOTE Confidence: 0.7248151

00:52:58.190 --> 00:53:00.680 it's sort of a sophisticated

NOTE Confidence: 0.7248151

00:53:00.680 --> 00:53:03.670 thing. OK, one other one other

NOTE Confidence: 0.7248151

00:53:03.670 --> 00:53:06.158 question, and I've heard Doctor  
NOTE Confidence: 0.7248151

00:53:06.158 --> 00:53:08.648 Maggio mentioned at the onset  
NOTE Confidence: 0.7999829333333333

00:53:08.650 --> 00:53:12.480 of. Sleep of Ram in the overnight  
NOTE Confidence: 0.7999829333333333

00:53:12.480 --> 00:53:15.230 sleep test when it's less than  
NOTE Confidence: 0.8150165

00:53:15.230 --> 00:53:17.976 20 minutes, that alone is significant  
NOTE Confidence: 0.8150165

00:53:17.976 --> 00:53:20.258 enough to make the diagnosis  
NOTE Confidence: 0.8150165

00:53:20.260 --> 00:53:24.140 as far as he was concerned.  
NOTE Confidence: 0.8354809

00:53:24.140 --> 00:53:26.318 So asleep on set run period,  
NOTE Confidence: 0.8354809

00:53:26.320 --> 00:53:28.952 it is usually a onset of REM within  
NOTE Confidence: 0.8354809

00:53:28.952 --> 00:53:31.040 15 minutes of achieving sleep.  
NOTE Confidence: 0.8354809

00:53:31.040 --> 00:53:33.936 I haven't heard the the 20 minute criteria.  
NOTE Confidence: 0.8354809

00:53:33.940 --> 00:53:36.327 It's usually with 15 and you should  
NOTE Confidence: 0.8354809

00:53:36.327 --> 00:53:39.388 have two or more to make the diagnosis.  
NOTE Confidence: 0.70982164

00:53:41.730 --> 00:53:45.694 So if you only had a 15 minutes only on  
NOTE Confidence: 0.70982164

00:53:45.700 --> 00:53:48.478 the overnight test, you still committed to  
NOTE Confidence: 0.70982164

00:53:48.480 --> 00:53:52.440 doing an MSL MSL T.

NOTE Confidence: 0.70982164

00:53:52.440 --> 00:53:54.080 To establish the diagnosis?

NOTE Confidence: 0.70982164

00:53:54.080 --> 00:53:57.360 Yes, for PSG and MSL T findings yet.

NOTE Confidence: 0.8320436

00:53:59.930 --> 00:54:02.640 One thing that I always wonder about

NOTE Confidence: 0.8320436

00:54:02.640 --> 00:54:04.961 is whether or not cataplexy that

NOTE Confidence: 0.8320436

00:54:04.961 --> 00:54:06.509 presses up cataplexy should

NOTE Confidence: 0.8320436

00:54:06.509 --> 00:54:07.670 be considered pathognomonic.

NOTE Confidence: 0.8320436

00:54:07.670 --> 00:54:10.225 Because when you look at the International

NOTE Confidence: 0.8320436

00:54:10.225 --> 00:54:11.930 Classification for Sleep Disorders,

NOTE Confidence: 0.8320436

00:54:11.930 --> 00:54:14.662 that's actually not part of their criteria.

NOTE Confidence: 0.8320436

00:54:14.662 --> 00:54:17.068 But there are sources outside of

NOTE Confidence: 0.8320436

00:54:17.068 --> 00:54:19.666 that that do suggest that it should

NOTE Confidence: 0.8320436

00:54:19.670 --> 00:54:20.828 be a pathognomonic

NOTE Confidence: 0.8320436

00:54:20.830 --> 00:54:21.988 criterion. You know,

NOTE Confidence: 0.8320436

00:54:21.990 --> 00:54:23.920 if the patient has cataplexy,

NOTE Confidence: 0.8320436

00:54:23.920 --> 00:54:26.247 then narcolepsy is the definite diagnosis.

NOTE Confidence: 0.8320436



00:54:26.247 --> 00:54:28.568 What do you think about that?  
NOTE Confidence: 0.8177311

00:54:29.590 --> 00:54:31.150 I actually agree with that,  
NOTE Confidence: 0.8177311

00:54:31.150 --> 00:54:33.327 specially with what we were talking about.  
NOTE Confidence: 0.8177311

00:54:33.330 --> 00:54:35.514 The sensitivity and specificity of Ms Lt.  
NOTE Confidence: 0.8177311

00:54:35.520 --> 00:54:37.158 I mean if the patient has  
NOTE Confidence: 0.8177311

00:54:37.158 --> 00:54:38.950 kind of clear cut cataplexy,  
NOTE Confidence: 0.8177311

00:54:38.950 --> 00:54:42.379 the MSL team not being such a great test.  
NOTE Confidence: 0.8177311

00:54:42.380 --> 00:54:44.894 I think you know, treating them  
NOTE Confidence: 0.8177311

00:54:44.894 --> 00:54:47.710 as a narcolepsy type one is valid.  
NOTE Confidence: 0.840593

00:54:50.920 --> 00:54:53.552 The only thing I would just say with  
NOTE Confidence: 0.840593

00:54:53.552 --> 00:54:56.885 that I think that to me that makes sense,  
NOTE Confidence: 0.840593

00:54:56.890 --> 00:54:58.018 except that remember,  
NOTE Confidence: 0.840593

00:54:58.018 --> 00:55:00.274 the cataplexy is basically a subjective  
NOTE Confidence: 0.840593

00:55:00.274 --> 00:55:02.069 finding that the patient gives you  
NOTE Confidence: 0.840593

00:55:02.069 --> 00:55:04.276 right so and now you're dealing with  
NOTE Confidence: 0.840593

00:55:04.276 --> 00:55:06.628 a very rare condition with controlled

NOTE Confidence: 0.840593

00:55:06.628 --> 00:55:08.437 substance medications which you know

NOTE Confidence: 0.840593

00:55:08.437 --> 00:55:10.132 include you know amphetamines and

NOTE Confidence: 0.840593

00:55:10.132 --> 00:55:11.980 other potential medications of abuse.

NOTE Confidence: 0.840593

00:55:11.980 --> 00:55:15.142 So I think you should still have, you know,

NOTE Confidence: 0.840593

00:55:15.142 --> 00:55:17.248 objective testing to confirm the diagnosis,

NOTE Confidence: 0.840593

00:55:17.250 --> 00:55:18.694 even with the obvious

NOTE Confidence: 0.840593

00:55:18.694 --> 00:55:19.777 cataplexy DAG cataplexy.

NOTE Confidence: 0.840593

00:55:19.780 --> 00:55:21.628 Symptom because I will tell you

NOTE Confidence: 0.840593

00:55:21.628 --> 00:55:22.860 just from personal experience,

NOTE Confidence: 0.840593

00:55:22.860 --> 00:55:25.425 I will see a lot of patients for second

NOTE Confidence: 0.840593

00:55:25.425 --> 00:55:27.926 opinion who want me to prescribe them

NOTE Confidence: 0.840593

00:55:27.926 --> 00:55:29.959 controlled substance and they give a

NOTE Confidence: 0.840593

00:55:29.959 --> 00:55:32.095 great story and then when I tell them

NOTE Confidence: 0.840593

00:55:32.100 --> 00:55:34.032 that before I'm going to prescribe

NOTE Confidence: 0.840593

00:55:34.032 --> 00:55:36.311 any medicines I need to see objective

NOTE Confidence: 0.840593

00:55:36.311 --> 00:55:38.481 testing or we need to repeat testing  
NOTE Confidence: 0.840593

00:55:38.545 --> 00:55:40.414 and then I never see them again.  
NOTE Confidence: 0.840593

00:55:40.420 --> 00:55:42.876 So you just gotta be careful with that.  
NOTE Confidence: 0.840593

00:55:42.880 --> 00:55:45.580 But I think if you have if you have that  
NOTE Confidence: 0.840593

00:55:45.650 --> 00:55:48.418 diagnosis then just in terms of the rent,  
NOTE Confidence: 0.840593

00:55:48.420 --> 00:55:49.740 suppression and and and.  
NOTE Confidence: 0.840593

00:55:49.740 --> 00:55:50.730 Medications you know.  
NOTE Confidence: 0.840593

00:55:50.730 --> 00:55:52.620 I personally will not do Ms,  
NOTE Confidence: 0.840593

00:55:52.620 --> 00:55:54.468 Lt and narcolepsy work up with  
NOTE Confidence: 0.840593

00:55:54.468 --> 00:55:56.070 someone who's on our rent.  
NOTE Confidence: 0.840593

00:55:56.070 --> 00:55:56.698 Suppressive medication.  
NOTE Confidence: 0.840593

00:55:56.698 --> 00:55:58.896 In the absence of a cataplexy symptom,  
NOTE Confidence: 0.840593

00:55:58.900 --> 00:56:00.629 because I just find that it gets  
NOTE Confidence: 0.840593

00:56:00.629 --> 00:56:02.750 very muddy and you have a potential  
NOTE Confidence: 0.840593

00:56:02.750 --> 00:56:04.405 false negatives and even potentially  
NOTE Confidence: 0.840593

00:56:04.405 --> 00:56:06.239 false positives if they just

NOTE Confidence: 0.840593  
00:56:06.239 --> 00:56:07.683 abruptly stopped the medication.  
NOTE Confidence: 0.840593  
00:56:07.690 --> 00:56:09.568 So gets a little dicey there.  
NOTE Confidence: 0.840593  
00:56:09.570 --> 00:56:11.140 But I know, you know,  
NOTE Confidence: 0.840593  
00:56:11.140 --> 00:56:12.396 sometimes you really stuck.  
NOTE Confidence: 0.840593  
00:56:12.396 --> 00:56:14.280 You want to help these patients,  
NOTE Confidence: 0.840593  
00:56:14.280 --> 00:56:16.701 but it gets a little dicey when you have  
NOTE Confidence: 0.840593  
00:56:16.701 --> 00:56:18.988 him on a REM suppressing medication.  
NOTE Confidence: 0.8400476  
00:56:21.280 --> 00:56:22.950 Alright, so one  
NOTE Confidence: 0.8400476  
00:56:22.950 --> 00:56:26.960 more question there, go ahead.  
NOTE Confidence: 0.8400476  
00:56:26.960 --> 00:56:30.292 You can come across any kind of  
NOTE Confidence: 0.8400476  
00:56:30.292 --> 00:56:33.426 mention of doing urine testing for  
NOTE Confidence: 0.8400476  
00:56:33.426 --> 00:56:37.171 either pro waking drugs to evade the  
NOTE Confidence: 0.8400476  
00:56:37.276 --> 00:56:40.546 effect of SLT or actually taking.  
NOTE Confidence: 0.8400476  
00:56:40.550 --> 00:56:42.078 Kind of asleep promoting  
NOTE Confidence: 0.8400476  
00:56:42.078 --> 00:56:43.988 agents prior to the testing.  
NOTE Confidence: 0.7948765

00:56:46.060 --> 00:56:48.166 So say that again, Doctor Moses.  
NOTE Confidence: 0.7948765

00:56:48.170 --> 00:56:51.338 So like doing drug testing prior to the MSL  
NOTE Confidence: 0.794876500000001

00:56:51.340 --> 00:56:53.916 team. Yeah, I think we used to do  
NOTE Confidence: 0.794876500000001

00:56:53.916 --> 00:56:56.360 urine test before MSL tear the Knights  
NOTE Confidence: 0.794876500000001

00:56:56.360 --> 00:56:59.282 of PSG just to make sure that they  
NOTE Confidence: 0.794876500000001

00:56:59.282 --> 00:57:01.900 are not on any either wake promoting  
NOTE Confidence: 0.794876500000001

00:57:01.900 --> 00:57:03.308 or sleep promoting medications.  
NOTE Confidence: 0.794876500000001

00:57:03.310 --> 00:57:06.030 Yeah, and some some labs will do also  
NOTE Confidence: 0.794876500000001

00:57:06.030 --> 00:57:08.589 like active ticker fee or sleep Diaries  
NOTE Confidence: 0.794876500000001

00:57:08.589 --> 00:57:11.486 just to ensure that they are not sleep  
NOTE Confidence: 0.794876500000001

00:57:11.486 --> 00:57:14.231 deprived as well and then the urine testing  
NOTE Confidence: 0.794876500000001

00:57:14.231 --> 00:57:17.119 before the the PSG MSL T to ensure.  
NOTE Confidence: 0.794876500000001

00:57:17.120 --> 00:57:18.772 That there are no other substances that  
NOTE Confidence: 0.794876500000001

00:57:18.772 --> 00:57:20.856 could kind of taint the results of the test.  
NOTE Confidence: 0.79100525

00:57:21.640 --> 00:57:23.712 Yeah, and do you do any urine  
NOTE Confidence: 0.79100525

00:57:23.712 --> 00:57:25.529 testing at your sleep center?

NOTE Confidence: 0.8342321

00:57:27.390 --> 00:57:29.790 So at Norwalk it's it's absolutely

NOTE Confidence: 0.8342321

00:57:29.790 --> 00:57:32.106 mandatory that they all get drug

NOTE Confidence: 0.8342321

00:57:32.106 --> 00:57:34.360 testing the morning of the MSL T,

NOTE Confidence: 0.8342321

00:57:34.360 --> 00:57:36.195 and I would strongly strongly

NOTE Confidence: 0.8342321

00:57:36.195 --> 00:57:37.663 caution not doing that.

NOTE Confidence: 0.8342321

00:57:37.670 --> 00:57:39.500 'cause that just seems so.

NOTE Confidence: 0.8342321

00:57:39.500 --> 00:57:42.436 We picked up positive we picked up cocaine.

NOTE Confidence: 0.8342321

00:57:42.440 --> 00:57:43.904 We picked up benzos.

NOTE Confidence: 0.8342321

00:57:43.904 --> 00:57:45.368 We picked up opiates.

NOTE Confidence: 0.8342321

00:57:45.370 --> 00:57:48.050 We picked up all sorts of stuff and so I

NOTE Confidence: 0.8342321

00:57:48.125 --> 00:57:50.880 think that's really absolutely necessary.

NOTE Confidence: 0.8342321

00:57:50.880 --> 00:57:53.001 Those are very nice study that looked

NOTE Confidence: 0.8342321

00:57:53.001 --> 00:57:55.727 at in the pediatric population and they

NOTE Confidence: 0.8342321

00:57:55.727 --> 00:57:58.355 found that essentially if someone was.

NOTE Confidence: 0.8342321

00:57:58.360 --> 00:58:01.080 Under 13 it was very very low yield,

NOTE Confidence: 0.8342321

00:58:01.080 --> 00:58:03.446 so we generally will not do it  
NOTE Confidence: 0.8342321

00:58:03.446 --> 00:58:05.684 for anyone who's 3rd, 12 or under.  
NOTE Confidence: 0.8342321

00:58:05.684 --> 00:58:08.784 But the 13 to 18 year old range you you  
NOTE Confidence: 0.8342321

00:58:08.784 --> 00:58:11.960 you know there was a number of positives,  
NOTE Confidence: 0.8342321

00:58:11.960 --> 00:58:13.928 and especially what I've seen is  
NOTE Confidence: 0.8342321

00:58:13.928 --> 00:58:15.649 we've seen tremendous amount of  
NOTE Confidence: 0.8342321

00:58:15.649 --> 00:58:17.399 positive marijuana because it's now,  
NOTE Confidence: 0.8342321

00:58:17.400 --> 00:58:18.114 you know,  
NOTE Confidence: 0.8342321

00:58:18.114 --> 00:58:19.899 approved and medical marijuana and  
NOTE Confidence: 0.8342321

00:58:19.899 --> 00:58:22.157 they may not tell you about it.  
NOTE Confidence: 0.8342321

00:58:22.160 --> 00:58:24.540 So I I definitely think that is.  
NOTE Confidence: 0.8342321

00:58:24.540 --> 00:58:26.240 I could tell you many,  
NOTE Confidence: 0.8342321

00:58:26.240 --> 00:58:28.280 many stories of positive urine drug  
NOTE Confidence: 0.8342321

00:58:28.280 --> 00:58:30.270 screens that changed the diagnosis.  
NOTE Confidence: 0.8342321

00:58:30.270 --> 00:58:31.974 Where if you didn't have that  
NOTE Confidence: 0.8342321

00:58:31.974 --> 00:58:33.600 test result of positive cocaine,

NOTE Confidence: 0.8342321

00:58:33.600 --> 00:58:35.840 you would have given the person narcolepsy

NOTE Confidence: 0.8342321

00:58:35.840 --> 00:58:37.849 diagnosis and then also a Tigger free.

NOTE Confidence: 0.8342321

00:58:37.850 --> 00:58:39.956 In my opinion is mandatory and

NOTE Confidence: 0.8342321

00:58:39.956 --> 00:58:41.360 strongly recommended because again

NOTE Confidence: 0.8342321

00:58:41.421 --> 00:58:43.234 insufficient sleep and and I can also

NOTE Confidence: 0.8342321

00:58:43.234 --> 00:58:45.216 give you a bunch of other stories

NOTE Confidence: 0.8342321

00:58:45.216 --> 00:58:47.242 of people doing things that in the

NOTE Confidence: 0.8342321

00:58:47.242 --> 00:58:49.054 middle of the night that didn't.

NOTE Confidence: 0.8342321

00:58:49.060 --> 00:58:50.842 They don't want their parents to

NOTE Confidence: 0.8342321

00:58:50.842 --> 00:58:52.762 know about and they would have

NOTE Confidence: 0.8342321

00:58:52.762 --> 00:58:54.110 been diagnosed with narcolepsy

NOTE Confidence: 0.8342321

00:58:54.110 --> 00:58:56.029 if we didn't have to take a

NOTE Confidence: 0.825312652

00:58:56.030 --> 00:58:59.000 break. I agree with you.

NOTE Confidence: 0.825312652

00:58:59.000 --> 00:59:01.964 I think you're in testing at

NOTE Confidence: 0.825312652

00:59:01.964 --> 00:59:05.162 minimum should be done in in the

NOTE Confidence: 0.825312652



00:59:05.162 --> 00:59:07.487 era of drug abuse and overuse.  
NOTE Confidence: 0.825312652

00:59:07.487 --> 00:59:10.168 Absolutely, I is it. Dan McNally.  
NOTE Confidence: 0.825312652

00:59:10.170 --> 00:59:13.305 We we do drug testing on everybody  
NOTE Confidence: 0.825312652

00:59:13.305 --> 00:59:15.940 and we also are very careful  
NOTE Confidence: 0.825312652

00:59:15.940 --> 00:59:18.340 about not just looking by sleep  
NOTE Confidence: 0.825312652

00:59:18.340 --> 00:59:20.138 Diaries or preferably actigraphy  
NOTE Confidence: 0.825312652

00:59:20.138 --> 00:59:22.238 for their insufficient sleep,  
NOTE Confidence: 0.825312652

00:59:22.240 --> 00:59:25.370 but also because of sleep phase delay.  
NOTE Confidence: 0.825312652

00:59:25.370 --> 00:59:27.263 The individuals again, adolescence.  
NOTE Confidence: 0.825312652

00:59:27.263 --> 00:59:29.668 With sleep phase delay shifting  
NOTE Confidence: 0.825312652

00:59:29.668 --> 00:59:32.106 that Clock over to those morning  
NOTE Confidence: 0.825312652

00:59:32.106 --> 00:59:34.590 hours makes you much more likely  
NOTE Confidence: 0.825312652

00:59:34.590 --> 00:59:37.140 to have a REM sleep episode.  
NOTE Confidence: 0.825312652

00:59:37.140 --> 00:59:40.110 That doesn't mean narcolepsy on your testing.  
NOTE Confidence: 0.8703814

00:59:43.590 --> 00:59:45.796 Alright, so it's already past  
NOTE Confidence: 0.8703814

00:59:45.796 --> 00:59:48.460 3:00 o'clock and an I'd like

NOTE Confidence: 0.8703814

00:59:48.557 --> 00:59:52.547 to thank Linda for a wonderful presentation.

NOTE Confidence: 0.8703814

00:59:52.550 --> 00:59:56.214 And you have another 12 or 13 minutes

NOTE Confidence: 0.8703814

00:59:56.214 --> 00:59:59.658 to register your for your CME credits.

NOTE Confidence: 0.8703814

00:59:59.660 --> 01:00:02.030 So anyways, have a great

NOTE Confidence: 0.8703814

01:00:02.030 --> 01:00:04.400 week and thank you again,

NOTE Confidence: 0.8703814

01:00:04.400 --> 01:00:07.720 Glenda for a fantastic job. Thank you.