

WEBVTT

NOTE duration:"01:00:43"

NOTE recognizability:0.776

NOTE language:en-us

NOTE Confidence: 0.866632105

00:00:00.000 --> 00:00:02.970 Everyone and welcome to sleep seminar.

NOTE Confidence: 0.866632105

00:00:02.970 --> 00:00:05.170 So I'm just going to start off with a few

NOTE Confidence: 0.866632105

00:00:05.227 --> 00:00:07.429 reminders before I introduce our speaker.

NOTE Confidence: 0.866632105

00:00:07.430 --> 00:00:08.905 So first these lectures that

NOTE Confidence: 0.866632105

00:00:08.905 --> 00:00:10.380 are available for CME credit.

NOTE Confidence: 0.866632105

00:00:10.380 --> 00:00:12.456 So just remember to text the

NOTE Confidence: 0.866632105

00:00:12.456 --> 00:00:15.163 ID for the lecture to the Yale

NOTE Confidence: 0.866632105

00:00:15.163 --> 00:00:17.233 cloud CME account this afternoon.

NOTE Confidence: 0.866632105

00:00:17.240 --> 00:00:18.736 If you're not sure how to do that,

NOTE Confidence: 0.866632105

00:00:18.740 --> 00:00:21.071 the information will be placed in the

NOTE Confidence: 0.866632105

00:00:21.071 --> 00:00:22.622 chat periodically during the session

NOTE Confidence: 0.866632105

00:00:22.622 --> 00:00:25.114 so you'll be able to see that if you

NOTE Confidence: 0.866632105

00:00:25.114 --> 00:00:27.049 have questions during the presentation,

NOTE Confidence: 0.866632105

00:00:27.050 --> 00:00:29.052 use the chat feature and we will
NOTE Confidence: 0.866632105

00:00:29.052 --> 00:00:31.289 have time for questions at the end.
NOTE Confidence: 0.866632105

00:00:31.290 --> 00:00:32.070 And also at the end,
NOTE Confidence: 0.866632105

00:00:32.070 --> 00:00:33.270 if you'd like to unmute yourself,
NOTE Confidence: 0.866632105

00:00:33.270 --> 00:00:35.388 that would be fine and then
NOTE Confidence: 0.866632105

00:00:35.388 --> 00:00:37.230 otherwise keep your microphone muted.
NOTE Confidence: 0.866632105

00:00:37.230 --> 00:00:38.178 I'd appreciate that.
NOTE Confidence: 0.866632105

00:00:38.178 --> 00:00:40.390 So now it is my pleasure to
NOTE Confidence: 0.866632105

00:00:40.464 --> 00:00:42.626 introduce today's speaker, Dr.
NOTE Confidence: 0.866632105

00:00:42.626 --> 00:00:43.518 Monserrate D.
NOTE Confidence: 0.866632105

00:00:43.518 --> 00:00:45.462 As a bad doctor Diaz.
NOTE Confidence: 0.866632105

00:00:45.462 --> 00:00:47.268 A bad is associate professor of
NOTE Confidence: 0.866632105

00:00:47.268 --> 00:00:48.985 medicine at the University of
NOTE Confidence: 0.866632105

00:00:48.985 --> 00:00:50.397 Maryland School of Medicine.
NOTE Confidence: 0.866632105

00:00:50.400 --> 00:00:52.470 She is director of the Pulmonary
NOTE Confidence: 0.866632105

00:00:52.470 --> 00:00:53.850 rehab program there Co.

NOTE Confidence: 0.866632105

00:00:53.850 --> 00:00:56.376 Director of the Ventilator weaning program.

NOTE Confidence: 0.866632105

00:00:56.380 --> 00:00:58.970 She's also the Co director for the

NOTE Confidence: 0.866632105

00:00:58.970 --> 00:01:00.650 Maryland ALS Certified Treatment

NOTE Confidence: 0.866632105

00:01:00.650 --> 00:01:02.159 Center of Excellence.

NOTE Confidence: 0.866632105

00:01:02.160 --> 00:01:05.196 And director of the Sleep Medicine

NOTE Confidence: 0.866632105

00:01:05.196 --> 00:01:07.220 Fellowship program at university.

NOTE Confidence: 0.866632105

00:01:07.220 --> 00:01:09.650 See Maryland ship ended middle

NOTE Confidence: 0.866632105

00:01:09.650 --> 00:01:12.880 school at Intec in Santo Domingo,

NOTE Confidence: 0.866632105

00:01:12.880 --> 00:01:15.400 from which she graduated Summa Coomb Laudy.

NOTE Confidence: 0.866632105

00:01:15.400 --> 00:01:17.730 She completed her residency and

NOTE Confidence: 0.866632105

00:01:17.730 --> 00:01:20.060 her PCSM Fellowship at Temple

NOTE Confidence: 0.866632105

00:01:20.136 --> 00:01:21.738 University in Philly.

NOTE Confidence: 0.866632105

00:01:21.740 --> 00:01:23.476 She then moved to University of Maryland,

NOTE Confidence: 0.866632105

00:01:23.480 --> 00:01:25.517 where she spent much of her career.

NOTE Confidence: 0.866632105

00:01:25.520 --> 00:01:27.428 She's been an active clinician and

NOTE Confidence: 0.866632105

00:01:27.428 --> 00:01:29.440 educator with a scope of practice,
NOTE Confidence: 0.866632105

00:01:29.440 --> 00:01:31.408 including the medical ICU,
NOTE Confidence: 0.866632105

00:01:31.408 --> 00:01:32.884 pulmonary konsult services,
NOTE Confidence: 0.866632105

00:01:32.890 --> 00:01:33.874 Sleep Medicine service,
NOTE Confidence: 0.866632105

00:01:33.874 --> 00:01:36.212 and the ventilator, weaning and rehab unit.
NOTE Confidence: 0.866632105

00:01:36.212 --> 00:01:37.226 She has numerous.
NOTE Confidence: 0.866632105

00:01:37.230 --> 00:01:38.910 Publications in the areas of sleep,
NOTE Confidence: 0.866632105

00:01:38.910 --> 00:01:39.370 sleep,
NOTE Confidence: 0.866632105

00:01:39.370 --> 00:01:41.210 disordered breathing and non
NOTE Confidence: 0.866632105

00:01:41.210 --> 00:01:42.130 invasive ventilation,
NOTE Confidence: 0.866632105

00:01:42.130 --> 00:01:44.110 among many other activities.
NOTE Confidence: 0.866632105

00:01:44.110 --> 00:01:45.838 She is a member of the Health and
NOTE Confidence: 0.866632105

00:01:45.838 --> 00:01:47.330 Public Policy Committee for the ACP,
NOTE Confidence: 0.866632105

00:01:47.330 --> 00:01:48.018 Maryland chapter.
NOTE Confidence: 0.866632105

00:01:48.018 --> 00:01:50.426 She is a pulmonary advisor for the
NOTE Confidence: 0.866632105

00:01:50.426 --> 00:01:51.709 Maryland Virginia DCLS Association

NOTE Confidence: 0.866632105

00:01:51.709 --> 00:01:53.760 and she is a member of the

NOTE Confidence: 0.866632105

00:01:53.821 --> 00:01:55.653 Ventilator Subcommittee for the

NOTE Confidence: 0.866632105

00:01:55.653 --> 00:01:57.485 Northeast LS Research Consortium.

NOTE Confidence: 0.866632105

00:01:57.490 --> 00:01:57.815 Additionally,

NOTE Confidence: 0.866632105

00:01:57.815 --> 00:01:59.765 she's a recipient of several clinical

NOTE Confidence: 0.866632105

00:01:59.765 --> 00:02:02.116 grants for the care of patients with a LS,

NOTE Confidence: 0.866632105

00:02:02.120 --> 00:02:03.854 so we are pleased and delighted

NOTE Confidence: 0.866632105

00:02:03.854 --> 00:02:05.410 to have doctor Diaz a bad.

NOTE Confidence: 0.866632105

00:02:05.410 --> 00:02:07.438 Join us today to discuss sleep.

NOTE Confidence: 0.866632105

00:02:07.440 --> 00:02:10.884 And respiratory management in LS so welcome.

NOTE Confidence: 0.817579443333333

00:02:11.630 --> 00:02:13.945 Thank you very much, Doctor

NOTE Confidence: 0.817579443333333

00:02:13.945 --> 00:02:15.797 Hilbert for the introduction.

NOTE Confidence: 0.817579443333333

00:02:15.800 --> 00:02:17.410 I will proceed to start.

NOTE Confidence: 0.805600543333334

00:02:20.060 --> 00:02:22.922 And dumb. So I I would like to talk

NOTE Confidence: 0.805600543333334

00:02:22.922 --> 00:02:25.879 about sleep and respiratory management

NOTE Confidence: 0.805600543333334

00:02:25.879 --> 00:02:28.439 ename trophic lateral sclerosis.
NOTE Confidence: 0.805600543333334

00:02:28.440 --> 00:02:30.925 And this is a disclosure side slide.
NOTE Confidence: 0.645738592727273

00:02:33.730 --> 00:02:36.106 So they overview of amber traffic
NOTE Confidence: 0.645738592727273

00:02:36.106 --> 00:02:38.100 ladders closest to begin with,
NOTE Confidence: 0.645738592727273

00:02:38.100 --> 00:02:41.160 then pulmonary assessment and management
NOTE Confidence: 0.645738592727273

00:02:41.160 --> 00:02:44.590 will proceed to talk about sleep disorders,
NOTE Confidence: 0.645738592727273

00:02:44.590 --> 00:02:46.945 treatment of respiratory failure with
NOTE Confidence: 0.645738592727273

00:02:46.945 --> 00:02:49.300 non invasive and invasive ventilation
NOTE Confidence: 0.645738592727273

00:02:49.366 --> 00:02:51.850 and a little bit about multidisciplinary
NOTE Confidence: 0.645738592727273

00:02:51.850 --> 00:02:54.080 clinic management in this disease.
NOTE Confidence: 0.645738592727273

00:02:54.080 --> 00:02:56.876 So as a very brief overview,
NOTE Confidence: 0.645738592727273

00:02:56.880 --> 00:03:00.152 LS is a syndrome with symptoms and signs
NOTE Confidence: 0.645738592727273

00:03:00.152 --> 00:03:02.863 of degeneration of upper and lower
NOTE Confidence: 0.645738592727273

00:03:02.863 --> 00:03:05.133 motor neurons leading to progressive,
NOTE Confidence: 0.645738592727273

00:03:05.140 --> 00:03:07.910 unrelenting weakness of a most
NOTE Confidence: 0.645738592727273

00:03:07.910 --> 00:03:10.680 muscle groups in the body.

NOTE Confidence: 0.645738592727273
00:03:10.680 --> 00:03:12.940 Death due to respiratory failure
NOTE Confidence: 0.645738592727273
00:03:12.940 --> 00:03:15.716 failure follow some in two to
NOTE Confidence: 0.645738592727273
00:03:15.716 --> 00:03:17.886 four years after symptom onset.
NOTE Confidence: 0.645738592727273
00:03:17.890 --> 00:03:21.005 Although there is a small subset 345
NOTE Confidence: 0.645738592727273
00:03:21.005 --> 00:03:23.195 percent that made survive at decade
NOTE Confidence: 0.645738592727273
00:03:23.195 --> 00:03:25.188 or more depending on the final.
NOTE Confidence: 0.645738592727273
00:03:25.190 --> 00:03:27.845 Cognitive dysfunction has been increasingly
NOTE Confidence: 0.645738592727273
00:03:27.845 --> 00:03:30.852 recognized in this population is being
NOTE Confidence: 0.645738592727273
00:03:30.852 --> 00:03:34.294 noted to be as high as 50% in some groups,
NOTE Confidence: 0.645738592727273
00:03:34.294 --> 00:03:37.620 3 to 5% develop frontotemporal type dementia,
NOTE Confidence: 0.645738592727273
00:03:37.620 --> 00:03:41.083 and this is a factor because it
NOTE Confidence: 0.645738592727273
00:03:41.083 --> 00:03:43.357 affects a compliance with an ID,
NOTE Confidence: 0.645738592727273
00:03:43.360 --> 00:03:45.310 for example.
NOTE Confidence: 0.645738592727273
00:03:45.310 --> 00:03:47.248 These are just some general numbers.
NOTE Confidence: 0.645738592727273
00:03:47.250 --> 00:03:50.904 They vary year by year and by by publication,
NOTE Confidence: 0.645738592727273

00:03:50.910 --> 00:03:53.292 but in general mean onset is
NOTE Confidence: 0.645738592727273

00:03:53.292 --> 00:03:55.789 middle age close to older age.
NOTE Confidence: 0.645738592727273

00:03:55.790 --> 00:03:57.878 There's some male to female ratio
NOTE Confidence: 0.645738592727273

00:03:57.878 --> 00:04:00.515 of two to one familiar cases are
NOTE Confidence: 0.645738592727273

00:04:00.515 --> 00:04:03.904 probably now closer to 10% because of
NOTE Confidence: 0.645738592727273

00:04:03.904 --> 00:04:05.875 increasing increasingly recognizing
NOTE Confidence: 0.645738592727273

00:04:05.875 --> 00:04:09.814 of a different jeans and more general
NOTE Confidence: 0.645738592727273

00:04:09.814 --> 00:04:13.282 typing being done in any given year,
NOTE Confidence: 0.645738592727273

00:04:13.282 --> 00:04:14.776 approximately 30,000 people.
NOTE Confidence: 0.645738592727273

00:04:14.780 --> 00:04:17.348 I'm leaving with a LS in the United
NOTE Confidence: 0.645738592727273

00:04:17.348 --> 00:04:19.985 States and roughly about 5000 new
NOTE Confidence: 0.645738592727273

00:04:19.985 --> 00:04:21.905 patients are diagnosed annually,
NOTE Confidence: 0.645738592727273

00:04:21.910 --> 00:04:24.318 so 5000 for the whole country that
NOTE Confidence: 0.645738592727273

00:04:24.318 --> 00:04:27.018 it doesn't give a lot of opportunity
NOTE Confidence: 0.645738592727273

00:04:27.018 --> 00:04:29.008 for exposure to these patients.
NOTE Confidence: 0.645738592727273

00:04:29.010 --> 00:04:32.048 A mean time from onset of symptoms

NOTE Confidence: 0.645738592727273
00:04:32.048 --> 00:04:34.828 to diagnosis is 13 to 18 months.
NOTE Confidence: 0.645738592727273
00:04:34.830 --> 00:04:36.150 It can be very long.
NOTE Confidence: 0.645738592727273
00:04:36.150 --> 00:04:38.404 A lot of these patients can get
NOTE Confidence: 0.645738592727273
00:04:38.404 --> 00:04:40.761 different procedures and neck
NOTE Confidence: 0.645738592727273
00:04:40.761 --> 00:04:43.469 decompression believe that they
NOTE Confidence: 0.645738592727273
00:04:43.469 --> 00:04:45.960 have cervical psynosis and.
NOTE Confidence: 0.645738592727273
00:04:45.960 --> 00:04:47.062 EMT procedures,
NOTE Confidence: 0.645738592727273
00:04:47.062 --> 00:04:47.613 etc.
NOTE Confidence: 0.645738592727273
00:04:47.613 --> 00:04:50.368 So it's it's really challenging
NOTE Confidence: 0.645738592727273
00:04:50.368 --> 00:04:53.679 because it's a diagnosis of exclusion.
NOTE Confidence: 0.645738592727273
00:04:53.680 --> 00:04:56.942 So it why are pulmonary and sleep
NOTE Confidence: 0.645738592727273
00:04:56.942 --> 00:04:59.180 physicians involved in the care?
NOTE Confidence: 0.645738592727273
00:04:59.180 --> 00:05:00.046 As mentioned,
NOTE Confidence: 0.645738592727273
00:05:00.046 --> 00:05:01.778 patients die from respiratory
NOTE Confidence: 0.645738592727273
00:05:01.778 --> 00:05:04.823 failure and this is a there's a nice
NOTE Confidence: 0.645738592727273

00:05:04.823 --> 00:05:07.209 series done by caution in in France
NOTE Confidence: 0.645738592727273

00:05:07.209 --> 00:05:09.479 where they took 100 consecutive
NOTE Confidence: 0.645738592727273

00:05:09.479 --> 00:05:11.962 patients that were admitted to the
NOTE Confidence: 0.645738592727273

00:05:11.962 --> 00:05:14.279 hospital that had a LS and died,
NOTE Confidence: 0.645738592727273

00:05:14.280 --> 00:05:17.143 hospitalized and they did out of seat
NOTE Confidence: 0.645738592727273

00:05:17.143 --> 00:05:20.653 on their on their hundred patients and
NOTE Confidence: 0.645738592727273

00:05:20.653 --> 00:05:23.844 they confirmed that 71% of them died.
NOTE Confidence: 0.645738592727273

00:05:23.844 --> 00:05:24.616 From pneumonia,
NOTE Confidence: 0.645738592727273

00:05:24.620 --> 00:05:27.600 both community acquired hospital acquired
NOTE Confidence: 0.645738592727273

00:05:27.600 --> 00:05:29.984 minority and aspiration pneumonia,
NOTE Confidence: 0.645738592727273

00:05:29.990 --> 00:05:33.602 so This is why both sleep pulmonary
NOTE Confidence: 0.645738592727273

00:05:33.602 --> 00:05:36.210 management is very important.
NOTE Confidence: 0.645738592727273

00:05:36.210 --> 00:05:39.513 The major test that we do for a LS
NOTE Confidence: 0.645738592727273

00:05:39.513 --> 00:05:42.141 monitoring is spirometry with forced
NOTE Confidence: 0.645738592727273

00:05:42.141 --> 00:05:46.656 vital capacity and this shows in a less
NOTE Confidence: 0.645738592727273

00:05:46.660 --> 00:05:48.712 restrictive ventilatory defect and.

NOTE Confidence: 0.645738592727273

00:05:48.712 --> 00:05:51.277 Which is a surrogate of

NOTE Confidence: 0.645738592727273

00:05:51.277 --> 00:05:53.020 respiratory muscle weakness.

NOTE Confidence: 0.645738592727273

00:05:53.020 --> 00:05:55.932 Both the absolute FBC and its slope of

NOTE Confidence: 0.645738592727273

00:05:55.932 --> 00:05:58.956 decline are good predictors of disease

NOTE Confidence: 0.645738592727273

00:05:58.956 --> 00:06:01.176 progression and survival sexually.

NOTE Confidence: 0.645738592727273

00:06:01.180 --> 00:06:04.498 The more the most validated predictor.

NOTE Confidence: 0.645738592727273

00:06:04.500 --> 00:06:04.964 However,

NOTE Confidence: 0.645738592727273

00:06:04.964 --> 00:06:08.212 there is great variability in in the

NOTE Confidence: 0.645738592727273

00:06:08.212 --> 00:06:10.740 decline and but within a particular

NOTE Confidence: 0.645738592727273

00:06:10.740 --> 00:06:13.890 patient they it does tend to be linear,

NOTE Confidence: 0.645738592727273

00:06:13.890 --> 00:06:16.506 at least during some period of the disease.

NOTE Confidence: 0.645738592727273

00:06:16.510 --> 00:06:17.914 So essentially some people

NOTE Confidence: 0.645738592727273

00:06:17.914 --> 00:06:19.669 declined very quickly and some.

NOTE Confidence: 0.803118535333333

00:06:19.670 --> 00:06:21.775 People decline a faster and

NOTE Confidence: 0.803118535333333

00:06:21.775 --> 00:06:24.425 I'll show a graph showing that

NOTE Confidence: 0.803118535333333

00:06:24.425 --> 00:06:27.028 average decline is about 3.5%,
NOTE Confidence: 0.8031185353333333

00:06:27.028 --> 00:06:30.060 but it varies widely.
NOTE Confidence: 0.8031185353333333

00:06:30.060 --> 00:06:31.640 So they they graph below.
NOTE Confidence: 0.8031185353333333

00:06:31.640 --> 00:06:33.288 Here they figure below.
NOTE Confidence: 0.8031185353333333

00:06:33.288 --> 00:06:34.624 I like in particular.
NOTE Confidence: 0.8031185353333333

00:06:34.624 --> 00:06:35.856 There are many studies
NOTE Confidence: 0.8031185353333333

00:06:35.856 --> 00:06:37.260 about every see showing,
NOTE Confidence: 0.8031185353333333

00:06:37.260 --> 00:06:39.342 but this one since there were
NOTE Confidence: 0.8031185353333333

00:06:39.342 --> 00:06:41.815 not many patients you can see
NOTE Confidence: 0.8031185353333333

00:06:41.815 --> 00:06:43.327 every individual measurement.
NOTE Confidence: 0.8031185353333333

00:06:43.330 --> 00:06:46.360 Every dot of the vital capacity
NOTE Confidence: 0.8031185353333333

00:06:46.360 --> 00:06:49.210 measured up to 70 months.
NOTE Confidence: 0.8031185353333333

00:06:49.210 --> 00:06:51.682 And as you can see you do get
NOTE Confidence: 0.8031185353333333

00:06:51.682 --> 00:06:53.954 these patients that are very slow
NOTE Confidence: 0.8031185353333333

00:06:53.954 --> 00:06:56.318 progressing and then you get patients
NOTE Confidence: 0.8031185353333333

00:06:56.391 --> 00:06:58.799 that in three months in six months

NOTE Confidence: 0.8031185353333333
00:06:58.799 --> 00:07:01.340 go from normal vital capacity to.
NOTE Confidence: 0.8031185353333333
00:07:01.340 --> 00:07:04.340 To essentially being on the ventilator.
NOTE Confidence: 0.8031185353333333
00:07:04.340 --> 00:07:06.503 And I will refer a little bit
NOTE Confidence: 0.8031185353333333
00:07:06.503 --> 00:07:09.438 to the to this study in a couple
NOTE Confidence: 0.8031185353333333
00:07:09.438 --> 00:07:11.161 more slides from this study.
NOTE Confidence: 0.8031185353333333
00:07:11.161 --> 00:07:12.429 I liked very much.
NOTE Confidence: 0.8031185353333333
00:07:12.430 --> 00:07:14.380 Essentially this was done by bit,
NOTE Confidence: 0.8031185353333333
00:07:14.380 --> 00:07:17.953 AKA at all in in Italy they took 25
NOTE Confidence: 0.8031185353333333
00:07:17.953 --> 00:07:21.148 patients and ALS and they did every
NOTE Confidence: 0.8031185353333333
00:07:21.148 --> 00:07:24.400 possible test under the pulmonary test,
NOTE Confidence: 0.8031185353333333
00:07:24.400 --> 00:07:25.918 respiratory mechanics, etc.
NOTE Confidence: 0.8031185353333333
00:07:25.918 --> 00:07:27.436 And it's very,
NOTE Confidence: 0.8031185353333333
00:07:27.440 --> 00:07:30.121 very thorough and has a lot of
NOTE Confidence: 0.8031185353333333
00:07:30.121 --> 00:07:31.899 information and for example,
NOTE Confidence: 0.8031185353333333
00:07:31.899 --> 00:07:34.677 they found that the desired outcome,
NOTE Confidence: 0.8031185353333333

00:07:34.680 --> 00:07:36.232 six months or Bible.
NOTE Confidence: 0.8031185353333333

00:07:36.232 --> 00:07:38.172 Patients who survive tended to
NOTE Confidence: 0.8031185353333333

00:07:38.172 --> 00:07:40.888 have a higher bio capacity than the
NOTE Confidence: 0.8031185353333333

00:07:40.888 --> 00:07:43.430 patients that were dead by six months.
NOTE Confidence: 0.8031185353333333

00:07:43.430 --> 00:07:43.850 Of course,
NOTE Confidence: 0.8031185353333333

00:07:43.850 --> 00:07:44.900 they were the patients who
NOTE Confidence: 0.8031185353333333

00:07:44.900 --> 00:07:45.810 were there were older.
NOTE Confidence: 0.8031185353333333

00:07:45.810 --> 00:07:47.060 This is a small group,
NOTE Confidence: 0.8031185353333333

00:07:47.060 --> 00:07:49.090 but this is just a sample of
NOTE Confidence: 0.8031185353333333

00:07:49.090 --> 00:07:51.302 what has been shown in multiple
NOTE Confidence: 0.8031185353333333

00:07:51.302 --> 00:07:53.412 studies that they initial vital
NOTE Confidence: 0.8031185353333333

00:07:53.412 --> 00:07:55.771 capacity is a predictor of how
NOTE Confidence: 0.8031185353333333

00:07:55.771 --> 00:07:57.576 long the patient will leave.
NOTE Confidence: 0.8031185353333333

00:07:57.580 --> 00:07:57.967 Uhm,
NOTE Confidence: 0.8031185353333333

00:07:57.967 --> 00:07:59.515 then other measurement besides
NOTE Confidence: 0.8031185353333333

00:07:59.515 --> 00:08:02.044 parameter that we do is measurement

NOTE Confidence: 0.803118535333333

00:08:02.044 --> 00:08:04.669 of respiratory muscle air pressures.

NOTE Confidence: 0.803118535333333

00:08:04.670 --> 00:08:07.245 This is a usually maximal

NOTE Confidence: 0.803118535333333

00:08:07.245 --> 00:08:08.275 inspiratory pressure.

NOTE Confidence: 0.803118535333333

00:08:08.280 --> 00:08:11.004 Maximal expert Tori pressure and one

NOTE Confidence: 0.803118535333333

00:08:11.004 --> 00:08:14.007 of the ways to measure inspiratory

NOTE Confidence: 0.803118535333333

00:08:14.007 --> 00:08:18.359 pressure can also be done with the Smith,

NOTE Confidence: 0.803118535333333

00:08:18.360 --> 00:08:20.730 which is essentially a it's done

NOTE Confidence: 0.803118535333333

00:08:20.730 --> 00:08:24.214 with a plug in the nose and the

NOTE Confidence: 0.803118535333333

00:08:24.214 --> 00:08:26.030 person sniffs forcefully and

NOTE Confidence: 0.803118535333333

00:08:26.030 --> 00:08:28.368 it gives a value that is.

NOTE Confidence: 0.803118535333333

00:08:28.370 --> 00:08:31.016 It has similar value to a

NOTE Confidence: 0.803118535333333

00:08:31.016 --> 00:08:32.339 maximal inspiratory pressure,

NOTE Confidence: 0.803118535333333

00:08:32.340 --> 00:08:35.322 or sometimes people refer to it

NOTE Confidence: 0.803118535333333

00:08:35.322 --> 00:08:37.807 as negative inspiratory force and

NOTE Confidence: 0.803118535333333

00:08:37.807 --> 00:08:40.297 the advantage of that is that

NOTE Confidence: 0.803118535333333

00:08:40.297 --> 00:08:42.631 it allows persons people have a
NOTE Confidence: 0.803118535333333

00:08:42.631 --> 00:08:45.221 or a weakness to be able to do
NOTE Confidence: 0.803118535333333

00:08:45.221 --> 00:08:47.480 it if they are not able to do a.
NOTE Confidence: 0.803118535333333

00:08:47.480 --> 00:08:50.176 A C / A over the mouthpiece and
NOTE Confidence: 0.803118535333333

00:08:50.176 --> 00:08:53.247 it has been shown to have a
NOTE Confidence: 0.803118535333333

00:08:53.247 --> 00:08:55.552 great correlation with the gold
NOTE Confidence: 0.803118535333333

00:08:55.647 --> 00:08:58.307 standard which is transparent,
NOTE Confidence: 0.803118535333333

00:08:58.310 --> 00:08:59.148 pragmatic pressure.
NOTE Confidence: 0.803118535333333

00:08:59.148 --> 00:09:01.243 But which requires the insertion
NOTE Confidence: 0.803118535333333

00:09:01.243 --> 00:09:04.119 of an aesopi yelling gastric balloon.
NOTE Confidence: 0.803118535333333

00:09:04.120 --> 00:09:08.008 And here is an example of many of
NOTE Confidence: 0.803118535333333

00:09:08.008 --> 00:09:11.406 how the initial measurement of
NOTE Confidence: 0.803118535333333

00:09:11.406 --> 00:09:14.294 a muscle strength depending on
NOTE Confidence: 0.803118535333333

00:09:14.294 --> 00:09:15.979 what the initial measurement is,
NOTE Confidence: 0.803118535333333

00:09:15.980 --> 00:09:18.605 and they and they decline the
NOTE Confidence: 0.803118535333333

00:09:18.605 --> 00:09:20.380 initial measurement and the decline,

NOTE Confidence: 0.803118535333333
00:09:20.380 --> 00:09:21.238 they survival.
NOTE Confidence: 0.803118535333333
00:09:21.238 --> 00:09:21.667 Essentially,
NOTE Confidence: 0.803118535333333
00:09:21.667 --> 00:09:25.240 it depending if you have a higher number,
NOTE Confidence: 0.803118535333333
00:09:25.240 --> 00:09:27.403 you live longer and this is power
NOTE Confidence: 0.803118535333333
00:09:27.403 --> 00:09:28.800 of over five years,
NOTE Confidence: 0.803118535333333
00:09:28.800 --> 00:09:29.350 there's a.
NOTE Confidence: 0.68130651325
00:09:31.770 --> 00:09:35.618 This is the same study I from VITACCA,
NOTE Confidence: 0.68130651325
00:09:35.620 --> 00:09:38.600 but in this one I want to focus on and
NOTE Confidence: 0.68130651325
00:09:38.686 --> 00:09:41.090 this part of the respiratory mechanics,
NOTE Confidence: 0.68130651325
00:09:41.090 --> 00:09:43.505 which is the a respiratory
NOTE Confidence: 0.68130651325
00:09:43.505 --> 00:09:45.437 rate over tidal volume.
NOTE Confidence: 0.68130651325
00:09:45.440 --> 00:09:48.376 What in the ICU you hear measure mentioned
NOTE Confidence: 0.68130651325
00:09:48.376 --> 00:09:52.245 as a risky or rapid shallow breathing index?
NOTE Confidence: 0.68130651325
00:09:52.250 --> 00:09:55.842 I think this is sometimes on the recognized
NOTE Confidence: 0.68130651325
00:09:55.842 --> 00:09:58.945 but and I have not seen this studied
NOTE Confidence: 0.68130651325

00:09:58.945 --> 00:10:02.647 in in in as much detail in any other.
NOTE Confidence: 0.68130651325

00:10:02.650 --> 00:10:03.804 Publication essentially,
NOTE Confidence: 0.68130651325

00:10:03.804 --> 00:10:06.689 if the diaphragm is weak,
NOTE Confidence: 0.68130651325

00:10:06.690 --> 00:10:09.280 then the breathing becomes shallower,
NOTE Confidence: 0.68130651325

00:10:09.280 --> 00:10:12.691 so the person has to breathe faster and the
NOTE Confidence: 0.68130651325

00:10:12.691 --> 00:10:16.028 reason is as the breathing becomes shallower,
NOTE Confidence: 0.68130651325

00:10:16.030 --> 00:10:18.480 the proportion of alveolar ventilation,
NOTE Confidence: 0.68130651325

00:10:18.480 --> 00:10:20.256 total ventilation decreases.
NOTE Confidence: 0.68130651325

00:10:20.256 --> 00:10:24.794 So if normal Dead Space is 30% for
NOTE Confidence: 0.68130651325

00:10:24.794 --> 00:10:27.552 someone who has a tidal volume of
NOTE Confidence: 0.68130651325

00:10:27.552 --> 00:10:30.400 500 that maybe 150CC's if that person
NOTE Confidence: 0.68130651325

00:10:30.400 --> 00:10:33.100 now has a shallow breath of 300.
NOTE Confidence: 0.68130651325

00:10:33.100 --> 00:10:35.284 That same that same Dead Space
NOTE Confidence: 0.68130651325

00:10:35.284 --> 00:10:36.768 doesn't change it's 150,
NOTE Confidence: 0.68130651325

00:10:36.768 --> 00:10:39.307 but now it's 50% of the breath,
NOTE Confidence: 0.68130651325

00:10:39.307 --> 00:10:41.281 so that person has to increase

NOTE Confidence: 0.68130651325

00:10:41.281 --> 00:10:43.395 their respiratory rate to maintain

NOTE Confidence: 0.68130651325

00:10:43.395 --> 00:10:45.107 our bill or ventilation.

NOTE Confidence: 0.68130651325

00:10:45.110 --> 00:10:47.658 Using a diaphragm that is already weak

NOTE Confidence: 0.68130651325

00:10:47.658 --> 00:10:50.680 to begin with and and very simply if

NOTE Confidence: 0.68130651325

00:10:50.680 --> 00:10:53.500 even if not measured with a because

NOTE Confidence: 0.68130651325

00:10:53.500 --> 00:10:55.637 I don't bottom, is not available.

NOTE Confidence: 0.68130651325

00:10:55.637 --> 00:10:57.182 Even the respiratory rate can

NOTE Confidence: 0.68130651325

00:10:57.182 --> 00:10:58.310 be very telling.

NOTE Confidence: 0.68130651325

00:10:58.310 --> 00:10:59.910 Here was not significant.

NOTE Confidence: 0.68130651325

00:10:59.910 --> 00:11:02.789 The numbers are very small, but you can

NOTE Confidence: 0.68130651325

00:11:02.789 --> 00:11:05.110 see at a difference of 28 versus 20.

NOTE Confidence: 0.68130651325

00:11:05.110 --> 00:11:08.296 So I think someone with a LS that is

NOTE Confidence: 0.68130651325

00:11:08.296 --> 00:11:11.040 breathing fast and shallow is very very.

NOTE Confidence: 0.68130651325

00:11:11.040 --> 00:11:13.100 It's something to take into

NOTE Confidence: 0.68130651325

00:11:13.100 --> 00:11:15.160 consideration and start an Ivy.

NOTE Confidence: 0.68130651325

00:11:15.160 --> 00:11:18.466 Earlier, even if they're not hypercapnic.

NOTE Confidence: 0.68130651325

00:11:18.470 --> 00:11:20.288 So it in full every sleeper,

NOTE Confidence: 0.68130651325

00:11:20.290 --> 00:11:21.229 by the way,

NOTE Confidence: 0.68130651325

00:11:21.229 --> 00:11:23.420 so this virus across the board I

NOTE Confidence: 0.68130651325

00:11:23.498 --> 00:11:25.778 ask Doctor Hilbert mentioned II.

NOTE Confidence: 0.68130651325

00:11:25.780 --> 00:11:27.970 I'm part of the ventilation

NOTE Confidence: 0.68130651325

00:11:27.970 --> 00:11:30.160 committee in this Niels Association

NOTE Confidence: 0.68130651325

00:11:30.231 --> 00:11:31.965 we had a meeting in 2018.

NOTE Confidence: 0.68130651325

00:11:31.970 --> 00:11:34.418 There were 21 of us and we started

NOTE Confidence: 0.68130651325

00:11:34.418 --> 00:11:36.690 raising her hand. Who does this?

NOTE Confidence: 0.68130651325

00:11:36.690 --> 00:11:38.370 Who does porometry all?

NOTE Confidence: 0.68130651325

00:11:38.370 --> 00:11:41.514 21 razor hands. Who does a Maple met?

NOTE Confidence: 0.68130651325

00:11:41.520 --> 00:11:44.760 14 Razor Hands who does speak off low?

NOTE Confidence: 0.68130651325

00:11:44.760 --> 00:11:46.468 Three raised her hand.

NOTE Confidence: 0.68130651325

00:11:46.468 --> 00:11:48.603 Who does a sleep study?

NOTE Confidence: 0.68130651325

00:11:48.610 --> 00:11:50.446 Regularly for razor hands.

NOTE Confidence: 0.68130651325

00:11:50.446 --> 00:11:54.183 Who does oximetry and on and on so

NOTE Confidence: 0.68130651325

00:11:54.183 --> 00:11:55.983 essentially after vital capacity

NOTE Confidence: 0.68130651325

00:11:55.983 --> 00:12:00.170 and make a map. It's one third one.

NOTE Confidence: 0.68130651325

00:12:00.170 --> 00:12:03.304 4th 1/5. So essentially there's no.

NOTE Confidence: 0.68130651325

00:12:03.304 --> 00:12:05.463 There's no, uh,

NOTE Confidence: 0.68130651325

00:12:05.463 --> 00:12:09.492 there's no consistency because there's

NOTE Confidence: 0.68130651325

00:12:09.492 --> 00:12:12.816 very little data beyond the vital

NOTE Confidence: 0.68130651325

00:12:12.816 --> 00:12:15.270 capacity and and probably a map.

NOTE Confidence: 0.68130651325

00:12:15.270 --> 00:12:17.200 So everyone does it differently.

NOTE Confidence: 0.68130651325

00:12:17.200 --> 00:12:18.516 I'm I'll mention what?

NOTE Confidence: 0.68130651325

00:12:18.516 --> 00:12:22.059 We do we do a upright for spinal capacity.

NOTE Confidence: 0.68130651325

00:12:22.060 --> 00:12:25.600 We do mapping map and we do a pic awful.

NOTE Confidence: 0.68130651325

00:12:25.600 --> 00:12:28.176 We also used to do arterial blood gas

NOTE Confidence: 0.68130651325

00:12:28.176 --> 00:12:30.658 during every clinic visit with when

NOTE Confidence: 0.68130651325

00:12:30.658 --> 00:12:32.873 patients were non invasive ventilation.

NOTE Confidence: 0.68130651325

00:12:32.880 --> 00:12:35.508 We have transition we gotta end
NOTE Confidence: 0.68130651325

00:12:35.508 --> 00:12:38.808 title CO2 monitor so we do that in
NOTE Confidence: 0.68130651325

00:12:38.808 --> 00:12:41.175 every clinic and we infrequently
NOTE Confidence: 0.68130651325

00:12:41.175 --> 00:12:44.445 now do nocturnal oximetry or PSG
NOTE Confidence: 0.68130651325

00:12:44.445 --> 00:12:47.228 but we do it if necessary.
NOTE Confidence: 0.68130651325

00:12:47.230 --> 00:12:50.300 We may do some questionnaires.
NOTE Confidence: 0.68130651325

00:12:50.300 --> 00:12:52.390 We also do as essentially
NOTE Confidence: 0.68130651325

00:12:52.390 --> 00:12:54.062 when I'm evaluating them.
NOTE Confidence: 0.68130651325

00:12:54.070 --> 00:12:57.220 I do a sleep slash pulmonary evaluation
NOTE Confidence: 0.68130651325

00:12:57.220 --> 00:13:00.530 as the usual things about breathlessness
NOTE Confidence: 0.68130651325

00:13:00.530 --> 00:13:03.802 and also non restorative sleep,
NOTE Confidence: 0.68130651325

00:13:03.802 --> 00:13:08.520 daytime sleepiness etc and on exam I
NOTE Confidence: 0.765007897272727

00:13:08.644 --> 00:13:11.280 always try to.
NOTE Confidence: 0.765007897272727

00:13:11.280 --> 00:13:13.158 Have them with very little close.
NOTE Confidence: 0.765007897272727

00:13:13.160 --> 00:13:15.008 Maybe it's being shared or not even
NOTE Confidence: 0.765007897272727

00:13:15.008 --> 00:13:17.038 that to see their chest movement.

NOTE Confidence: 0.765007897272727
00:13:17.040 --> 00:13:19.200 Put my hands on the chest,
NOTE Confidence: 0.765007897272727
00:13:19.200 --> 00:13:21.594 make sure that see if the diaphragm is did.
NOTE Confidence: 0.765007897272727
00:13:21.600 --> 00:13:22.788 The chest is moving.
NOTE Confidence: 0.765007897272727
00:13:22.788 --> 00:13:25.377 Is it moving bait more lower that the
NOTE Confidence: 0.765007897272727
00:13:25.377 --> 00:13:27.603 diagram is moving and there's expansion?
NOTE Confidence: 0.765007897272727
00:13:27.610 --> 00:13:30.368 Or is he moving more based on
NOTE Confidence: 0.765007897272727
00:13:30.368 --> 00:13:32.169 the accessory muscles on top?
NOTE Confidence: 0.765007897272727
00:13:32.170 --> 00:13:33.542 So that's very helpful.
NOTE Confidence: 0.765007897272727
00:13:33.542 --> 00:13:35.600 Also ask the patients took off.
NOTE Confidence: 0.765007897272727
00:13:35.600 --> 00:13:37.296 Sometimes patients go and
NOTE Confidence: 0.765007897272727
00:13:37.296 --> 00:13:39.416 and and and that's very.
NOTE Confidence: 0.765007897272727
00:13:39.420 --> 00:13:41.430 That's a very important to note.
NOTE Confidence: 0.765007897272727
00:13:41.430 --> 00:13:43.269 A week off,
NOTE Confidence: 0.765007897272727
00:13:43.269 --> 00:13:46.947 are you having problems with secretions?
NOTE Confidence: 0.765007897272727
00:13:46.950 --> 00:13:48.339 Second life flat.
NOTE Confidence: 0.765007897272727

00:13:48.339 --> 00:13:50.654 Paradoxical movement is very telling.
NOTE Confidence: 0.765007897272727

00:13:50.660 --> 00:13:52.625 Sometimes I it's very efficiently
NOTE Confidence: 0.765007897272727

00:13:52.625 --> 00:13:53.804 so now wheelchair.
NOTE Confidence: 0.765007897272727

00:13:53.810 --> 00:13:55.386 We don't get them to the exam table,
NOTE Confidence: 0.765007897272727

00:13:55.390 --> 00:13:57.714 but if they are mobile, it I.
NOTE Confidence: 0.765007897272727

00:13:57.714 --> 00:13:59.496 I've seen patients that we lay
NOTE Confidence: 0.765007897272727

00:13:59.496 --> 00:14:01.290 down and 30 seconds later,
NOTE Confidence: 0.765007897272727

00:14:01.290 --> 00:14:02.920 or saying I cannot breathe,
NOTE Confidence: 0.765007897272727

00:14:02.920 --> 00:14:05.860 so that's because of orthopnea.
NOTE Confidence: 0.765007897272727

00:14:05.860 --> 00:14:08.009 So one thing that I want to
NOTE Confidence: 0.765007897272727

00:14:08.009 --> 00:14:10.325 mention here is the supine for
NOTE Confidence: 0.765007897272727

00:14:10.325 --> 00:14:12.515 spiral capacity or vital capacity,
NOTE Confidence: 0.765007897272727

00:14:12.520 --> 00:14:14.244 depending on which measurement
NOTE Confidence: 0.765007897272727

00:14:14.244 --> 00:14:17.430 you do slow or or or force,
NOTE Confidence: 0.765007897272727

00:14:17.430 --> 00:14:21.392 this is very telling of a suggested not
NOTE Confidence: 0.765007897272727

00:14:21.392 --> 00:14:24.920 only of a diaphragmatic weakness for my LS,

NOTE Confidence: 0.765007897272727
00:14:24.920 --> 00:14:26.603 but diaphragmatic weakness
NOTE Confidence: 0.765007897272727
00:14:26.603 --> 00:14:28.286 from any situation.
NOTE Confidence: 0.765007897272727
00:14:28.290 --> 00:14:31.680 So typically, on a normal quote,
NOTE Confidence: 0.765007897272727
00:14:31.680 --> 00:14:36.066 unquote, healthy, let's say they they.
NOTE Confidence: 0.765007897272727
00:14:36.070 --> 00:14:40.092 Drop is up to 10% once you start
NOTE Confidence: 0.765007897272727
00:14:40.092 --> 00:14:42.336 getting into a less group in
NOTE Confidence: 0.765007897272727
00:14:42.336 --> 00:14:44.810 this series can be it was 15%,
NOTE Confidence: 0.765007897272727
00:14:44.810 --> 00:14:47.564 but it actually can be 2025.
NOTE Confidence: 0.765007897272727
00:14:47.564 --> 00:14:50.288 One thing that because we don't
NOTE Confidence: 0.765007897272727
00:14:50.288 --> 00:14:53.360 do the the supine regularly.
NOTE Confidence: 0.765007897272727
00:14:53.360 --> 00:14:55.676 One thing that I've found very
NOTE Confidence: 0.765007897272727
00:14:55.676 --> 00:14:57.715 suggestive is when patients up
NOTE Confidence: 0.765007897272727
00:14:57.715 --> 00:14:59.815 orthopnea unless they have another
NOTE Confidence: 0.765007897272727
00:14:59.815 --> 00:15:01.830 reason like heart failure etc.
NOTE Confidence: 0.765007897272727
00:15:01.830 --> 00:15:06.096 That is very, very suggestive of a of a.
NOTE Confidence: 0.765007897272727

00:15:06.100 --> 00:15:09.490 A very weak diaphragm in this
NOTE Confidence: 0.765007897272727

00:15:09.490 --> 00:15:10.620 clinical situation,
NOTE Confidence: 0.765007897272727

00:15:10.620 --> 00:15:15.408 and it's almost a I would say not equivalent,
NOTE Confidence: 0.765007897272727

00:15:15.410 --> 00:15:17.377 but very similar and these are patients.
NOTE Confidence: 0.765007897272727

00:15:17.380 --> 00:15:18.379 In this case,
NOTE Confidence: 0.765007897272727

00:15:18.379 --> 00:15:20.377 the daytime fatigue is more sleepiness,
NOTE Confidence: 0.765007897272727

00:15:20.380 --> 00:15:24.970 even higher, so it's we do.
NOTE Confidence: 0.765007897272727

00:15:24.970 --> 00:15:26.910 Is sometimes do so prime,
NOTE Confidence: 0.765007897272727

00:15:26.910 --> 00:15:30.039 but it's more on the patient with
NOTE Confidence: 0.765007897272727

00:15:30.039 --> 00:15:31.876 undiagnosed disneya that already
NOTE Confidence: 0.765007897272727

00:15:31.876 --> 00:15:34.774 has had PFTS and CT and everything,
NOTE Confidence: 0.765007897272727

00:15:34.780 --> 00:15:36.677 and you're trying to find the cost
NOTE Confidence: 0.765007897272727

00:15:36.677 --> 00:15:38.439 once they have their diagnosis,
NOTE Confidence: 0.765007897272727

00:15:38.440 --> 00:15:40.617 we go more by symptoms such as
NOTE Confidence: 0.765007897272727

00:15:40.617 --> 00:15:43.299 orthopnea and the upright in vital capacity,
NOTE Confidence: 0.765007897272727

00:15:43.300 --> 00:15:46.924 but I this is again another example of

NOTE Confidence: 0.765007897272727

00:15:46.924 --> 00:15:50.228 resources is someone has the resources.

NOTE Confidence: 0.765007897272727

00:15:50.230 --> 00:15:51.707 It would be ideal to do U.S.

NOTE Confidence: 0.765007897272727

00:15:51.710 --> 00:15:53.078 Open supine vital capacity.

NOTE Confidence: 0.765007897272727

00:15:53.078 --> 00:15:55.470 I want to talk a little bit.

NOTE Confidence: 0.765007897272727

00:15:55.470 --> 00:15:58.610 Cost maneuver because these patients,

NOTE Confidence: 0.765007897272727

00:15:58.610 --> 00:16:01.834 even though we may do only only sleep

NOTE Confidence: 0.765007897272727

00:16:01.834 --> 00:16:06.044 and not pulmonary for a some group of people,

NOTE Confidence: 0.765007897272727

00:16:06.050 --> 00:16:08.405 is sometimes I've seen people

NOTE Confidence: 0.765007897272727

00:16:08.405 --> 00:16:10.289 who are not pulmonary,

NOTE Confidence: 0.765007897272727

00:16:10.290 --> 00:16:11.498 that they prove analogy.

NOTE Confidence: 0.765007897272727

00:16:11.498 --> 00:16:13.008 Sent them the LS patients,

NOTE Confidence: 0.765007897272727

00:16:13.010 --> 00:16:15.818 or neuromuscular to manage their noninvasive,

NOTE Confidence: 0.765007897272727

00:16:15.820 --> 00:16:17.452 not all the time.

NOTE Confidence: 0.765007897272727

00:16:17.452 --> 00:16:19.492 But sometimes they they they.

NOTE Confidence: 0.765007897272727

00:16:19.500 --> 00:16:20.820 I have seen it happen.

NOTE Confidence: 0.765007897272727

00:16:20.820 --> 00:16:23.403 Wanna talk a little bit about the
NOTE Confidence: 0.765007897272727

00:16:23.403 --> 00:16:25.386 cough maneuver it during inspiration
NOTE Confidence: 0.765007897272727

00:16:25.386 --> 00:16:28.172 person takes a they take a breath
NOTE Confidence: 0.765007897272727

00:16:28.172 --> 00:16:31.216 in and then the glottic a glorious
NOTE Confidence: 0.765007897272727

00:16:31.216 --> 00:16:33.888 closes for about .2 seconds.
NOTE Confidence: 0.765007897272727

00:16:33.888 --> 00:16:35.884 During that Glottic closure
NOTE Confidence: 0.765007897272727

00:16:35.884 --> 00:16:37.880 the abdominal muscles contract
NOTE Confidence: 0.859778875384615

00:16:37.958 --> 00:16:40.352 forcefully and there is a buildup
NOTE Confidence: 0.859778875384615

00:16:40.352 --> 00:16:42.490 of pressure because of that
NOTE Confidence: 0.859778875384615

00:16:42.490 --> 00:16:44.810 contraction with a closed glottis.
NOTE Confidence: 0.859778875384615

00:16:44.810 --> 00:16:47.000 Then the glottis opens here and
NOTE Confidence: 0.859778875384615

00:16:47.000 --> 00:16:49.509 you see this huge flush of air.
NOTE Confidence: 0.859778875384615

00:16:49.510 --> 00:16:52.310 And we did speak call flow here at
NOTE Confidence: 0.859778875384615

00:16:52.310 --> 00:16:55.007 this spike baby baby that's a normal
NOTE Confidence: 0.859778875384615

00:16:55.007 --> 00:16:58.047 cough and then you have a drop of flow
NOTE Confidence: 0.859778875384615

00:16:58.047 --> 00:17:01.208 in a drop of pressure and while their

NOTE Confidence: 0.859778875384615
00:17:01.208 --> 00:17:04.370 strongest cough occurs at high levels
NOTE Confidence: 0.859778875384615
00:17:04.459 --> 00:17:07.566 of total lung capacity 85 not 90%.
NOTE Confidence: 0.859778875384615
00:17:07.566 --> 00:17:10.450 You can even have a very forceful
NOTE Confidence: 0.859778875384615
00:17:10.547 --> 00:17:13.901 cough with even low lung volumes
NOTE Confidence: 0.859778875384615
00:17:13.901 --> 00:17:17.187 because of the effectiveness of this
NOTE Confidence: 0.859778875384615
00:17:17.187 --> 00:17:20.533 maneuver and this this this huge flows.
NOTE Confidence: 0.859778875384615
00:17:20.540 --> 00:17:22.277 And they share.
NOTE Confidence: 0.859778875384615
00:17:22.277 --> 00:17:25.751 They move the mucus from the
NOTE Confidence: 0.859778875384615
00:17:25.751 --> 00:17:27.899 Airways and expel it.
NOTE Confidence: 0.859778875384615
00:17:27.900 --> 00:17:30.052 And this is a patient with a LS
NOTE Confidence: 0.859778875384615
00:17:30.052 --> 00:17:32.364 where they do it spirometry and then
NOTE Confidence: 0.859778875384615
00:17:32.364 --> 00:17:34.520 they just had them serially cough.
NOTE Confidence: 0.859778875384615
00:17:34.520 --> 00:17:37.139 As you can see even at the lower lumbar
NOTE Confidence: 0.859778875384615
00:17:37.139 --> 00:17:39.660 and you can still generate a High
NOTE Confidence: 0.859778875384615
00:17:39.660 --> 00:17:42.127 Peak flow pressures and and and that
NOTE Confidence: 0.859778875384615

00:17:42.127 --> 00:17:45.196 are effective and then you see the pics here.

NOTE Confidence: 0.859778875384615

00:17:45.196 --> 00:17:48.122 This is someone who has moderate bulbar

NOTE Confidence: 0.859778875384615

00:17:48.122 --> 00:17:50.329 impairment and this is someone that.

NOTE Confidence: 0.859778875384615

00:17:50.330 --> 00:17:53.708 Taskbar paralysis so it they it's.

NOTE Confidence: 0.859778875384615

00:17:53.710 --> 00:17:56.200 This has a lot of implications

NOTE Confidence: 0.859778875384615

00:17:56.200 --> 00:17:57.860 for management and survival.

NOTE Confidence: 0.859778875384615

00:17:57.860 --> 00:18:02.600 We measure pickup flow usually without

NOTE Confidence: 0.859778875384615

00:18:02.600 --> 00:18:05.645 peak expiratory me in flowmeter like

NOTE Confidence: 0.859778875384615

00:18:05.645 --> 00:18:09.900 the the the asthma once normal is

NOTE Confidence: 0.859778875384615

00:18:09.900 --> 00:18:12.798 360-2840 liters per minute or even higher.

NOTE Confidence: 0.859778875384615

00:18:12.800 --> 00:18:15.512 It has been estimated that at least a

NOTE Confidence: 0.859778875384615

00:18:15.512 --> 00:18:18.500 pic of low 160 years permit is needed.

NOTE Confidence: 0.859778875384615

00:18:18.500 --> 00:18:20.929 These values are not very precise because

NOTE Confidence: 0.859778875384615

00:18:20.929 --> 00:18:24.069 as you know this virus depending on height,

NOTE Confidence: 0.859778875384615

00:18:24.070 --> 00:18:25.600 predictive value etc.

NOTE Confidence: 0.859778875384615

00:18:25.600 --> 00:18:28.660 But it's a broadcast inmate and.

NOTE Confidence: 0.859778875384615
00:18:28.660 --> 00:18:30.100 In the US,
NOTE Confidence: 0.859778875384615
00:18:30.100 --> 00:18:32.980 4 prescribing compass sistance you do
NOTE Confidence: 0.859778875384615
00:18:32.980 --> 00:18:36.519 not need to measure the pickup flow.
NOTE Confidence: 0.859778875384615
00:18:36.520 --> 00:18:38.340 You'll only need a report from the
NOTE Confidence: 0.859778875384615
00:18:38.340 --> 00:18:39.940 patient that they have problems
NOTE Confidence: 0.859778875384615
00:18:39.940 --> 00:18:41.865 coughing with the appropriate diagnosis,
NOTE Confidence: 0.859778875384615
00:18:41.870 --> 00:18:43.246 such as a LS.
NOTE Confidence: 0.859778875384615
00:18:43.246 --> 00:18:46.326 But I there's some places I've seen some
NOTE Confidence: 0.859778875384615
00:18:46.326 --> 00:18:49.609 provinces in Canada that they actually base,
NOTE Confidence: 0.859778875384615
00:18:49.610 --> 00:18:51.848 went to prescribe it on measuring
NOTE Confidence: 0.859778875384615
00:18:51.848 --> 00:18:55.020 the peak of flow we you can fit
NOTE Confidence: 0.859778875384615
00:18:55.020 --> 00:18:57.540 the pickoff flowmeter with a mask.
NOTE Confidence: 0.859778875384615
00:18:57.540 --> 00:18:59.864 If the patient has evolved a weakness.
NOTE Confidence: 0.859778875384615
00:18:59.870 --> 00:19:03.140 We actually do some of our PFTS with masks.
NOTE Confidence: 0.859778875384615
00:19:03.140 --> 00:19:05.390 If they patient cannot have a,
NOTE Confidence: 0.859778875384615

00:19:05.390 --> 00:19:05.748 uh,
NOTE Confidence: 0.859778875384615
00:19:05.748 --> 00:19:06.822 a good seal,
NOTE Confidence: 0.859778875384615
00:19:06.822 --> 00:19:09.505 we have stopped using the flow meter
NOTE Confidence: 0.859778875384615
00:19:09.505 --> 00:19:11.790 because these were individual for
NOTE Confidence: 0.859778875384615
00:19:11.790 --> 00:19:15.220 patients and what we tell they slipped a.
NOTE Confidence: 0.859778875384615
00:19:15.220 --> 00:19:18.804 The PFT Technologies is to actually just
NOTE Confidence: 0.859778875384615
00:19:18.804 --> 00:19:22.665 do an expert do have them do a cough
NOTE Confidence: 0.859778875384615
00:19:22.670 --> 00:19:25.010 and record the spirometry maneuver.
NOTE Confidence: 0.859778875384615
00:19:25.010 --> 00:19:27.314 So then the peak exploratory flow
NOTE Confidence: 0.859778875384615
00:19:27.314 --> 00:19:30.019 of that maneuver is a peak of flow.
NOTE Confidence: 0.859778875384615
00:19:30.020 --> 00:19:33.270 So that is A and then we if we multiply
NOTE Confidence: 0.859778875384615
00:19:33.361 --> 00:19:36.193 by 60 you get 4 liters per minute,
NOTE Confidence: 0.859778875384615
00:19:36.200 --> 00:19:38.780 for example 4 liters per second.
NOTE Confidence: 0.859778875384615
00:19:38.780 --> 00:19:44.270 That is 200. And 240 liters per per minute.
NOTE Confidence: 0.859778875384615
00:19:44.270 --> 00:19:47.490 So it's very it's very easy and
NOTE Confidence: 0.859778875384615
00:19:47.490 --> 00:19:50.190 and do not have to do.

NOTE Confidence: 0.859778875384615
00:19:50.190 --> 00:19:53.430 They are additional costs of the flow meter,
NOTE Confidence: 0.859778875384615
00:19:53.430 --> 00:19:58.071 so the main mechanisms in maneuvers that
NOTE Confidence: 0.859778875384615
00:19:58.071 --> 00:20:05.180 can help with cough is essentially A2 fold.
NOTE Confidence: 0.859778875384615
00:20:05.180 --> 00:20:07.885 Without any equipment without any
NOTE Confidence: 0.859778875384615
00:20:07.885 --> 00:20:09.508 mechanical advanced equipment,
NOTE Confidence: 0.859778875384615
00:20:09.510 --> 00:20:11.253 so this is for example that case
NOTE Confidence: 0.859778875384615
00:20:11.253 --> 00:20:12.000 of a 49
NOTE Confidence: 0.863845126923077
00:20:12.065 --> 00:20:14.230 year old woman, very low vital
NOTE Confidence: 0.863845126923077
00:20:14.230 --> 00:20:16.612 capacity of 10% predicted and
NOTE Confidence: 0.863845126923077
00:20:16.612 --> 00:20:19.620 pick off low 43 liters per minute.
NOTE Confidence: 0.863845126923077
00:20:19.620 --> 00:20:21.860 We mentioned at least 160 we need
NOTE Confidence: 0.863845126923077
00:20:21.860 --> 00:20:24.471 and the patient was trained to beths
NOTE Confidence: 0.863845126923077
00:20:24.471 --> 00:20:26.804 breast stack with an essentially with
NOTE Confidence: 0.863845126923077
00:20:26.804 --> 00:20:29.464 an AMBU bag or sleep ventilator was
NOTE Confidence: 0.863845126923077
00:20:29.538 --> 00:20:31.890 able to take two to three breaths,
NOTE Confidence: 0.863845126923077

00:20:31.890 --> 00:20:33.878 one on top of each other to
NOTE Confidence: 0.863845126923077

00:20:33.878 --> 00:20:35.729 build the total lung capacity.
NOTE Confidence: 0.863845126923077

00:20:35.730 --> 00:20:39.110 And by doing that they.
NOTE Confidence: 0.863845126923077

00:20:39.110 --> 00:20:41.972 Was able to take in 2.5 liters
NOTE Confidence: 0.863845126923077

00:20:41.972 --> 00:20:45.008 and the peak of flow increased
NOTE Confidence: 0.863845126923077

00:20:45.008 --> 00:20:47.072 to 120 liters per minute.
NOTE Confidence: 0.863845126923077

00:20:47.072 --> 00:20:49.400 So on this patient there was
NOTE Confidence: 0.863845126923077

00:20:49.485 --> 00:20:51.620 a second maneuver was added,
NOTE Confidence: 0.863845126923077

00:20:51.620 --> 00:20:55.197 which is a manually assisted coughing cough,
NOTE Confidence: 0.863845126923077

00:20:55.200 --> 00:20:57.576 which is it has different ways of doing it,
NOTE Confidence: 0.863845126923077

00:20:57.580 --> 00:20:59.555 but it's essentially almost like
NOTE Confidence: 0.863845126923077

00:20:59.555 --> 00:21:01.530 our handling maneuver pushing on
NOTE Confidence: 0.863845126923077

00:21:01.599 --> 00:21:03.543 the top on the top of the abdomen
NOTE Confidence: 0.863845126923077

00:21:03.543 --> 00:21:05.736 at the same time that they called,
NOTE Confidence: 0.863845126923077

00:21:05.740 --> 00:21:09.196 and this was able to increase to 283 liters.
NOTE Confidence: 0.863845126923077

00:21:09.196 --> 00:21:09.970 For a minute.

NOTE Confidence: 0.863845126923077
00:21:09.970 --> 00:21:12.180 So sometimes we educate their
NOTE Confidence: 0.863845126923077
00:21:12.180 --> 00:21:13.506 patients about that.
NOTE Confidence: 0.863845126923077
00:21:13.510 --> 00:21:14.659 Just be aware,
NOTE Confidence: 0.863845126923077
00:21:14.659 --> 00:21:16.957 try to take deep breaths and
NOTE Confidence: 0.863845126923077
00:21:16.957 --> 00:21:19.175 push on on the top of your.
NOTE Confidence: 0.863845126923077
00:21:19.180 --> 00:21:20.475 If you're having trouble coughing
NOTE Confidence: 0.863845126923077
00:21:20.475 --> 00:21:22.400 until we get you there, help.
NOTE Confidence: 0.863845126923077
00:21:22.400 --> 00:21:26.278 We need so secretion management you know,
NOTE Confidence: 0.863845126923077
00:21:26.278 --> 00:21:27.734 just swallow solation can
NOTE Confidence: 0.863845126923077
00:21:27.734 --> 00:21:30.089 be used if we just cheer,
NOTE Confidence: 0.863845126923077
00:21:30.090 --> 00:21:33.912 say the mucus and from the smaller
NOTE Confidence: 0.863845126923077
00:21:33.912 --> 00:21:39.418 Airways and centers in the larger Airways.
NOTE Confidence: 0.863845126923077
00:21:39.420 --> 00:21:41.840 I we don't use it a lot because we use
NOTE Confidence: 0.863845126923077
00:21:41.907 --> 00:21:44.643 the next device that we were talking about,
NOTE Confidence: 0.863845126923077
00:21:44.650 --> 00:21:47.314 but it it has a used in cases
NOTE Confidence: 0.863845126923077

00:21:47.314 --> 00:21:50.172 of patients that have a lot of
NOTE Confidence: 0.863845126923077

00:21:50.172 --> 00:21:52.282 purulent secretions that not just
NOTE Confidence: 0.863845126923077

00:21:52.369 --> 00:21:55.033 have a LS or it could be someone
NOTE Confidence: 0.863845126923077

00:21:55.033 --> 00:21:57.392 that has moderately week off that
NOTE Confidence: 0.863845126923077

00:21:57.392 --> 00:21:59.930 needs some help but cannot tolerate
NOTE Confidence: 0.863845126923077

00:22:00.003 --> 00:22:02.258 the the insufflator extra later.
NOTE Confidence: 0.863845126923077

00:22:02.260 --> 00:22:02.708 However,
NOTE Confidence: 0.863845126923077

00:22:02.708 --> 00:22:06.024 I there is some concern about someone
NOTE Confidence: 0.863845126923077

00:22:06.024 --> 00:22:09.580 who has zero cough or almost 0.
NOTE Confidence: 0.863845126923077

00:22:09.580 --> 00:22:12.160 'cause moving a lot of secretions
NOTE Confidence: 0.863845126923077

00:22:12.160 --> 00:22:15.242 into the central airway and and and
NOTE Confidence: 0.863845126923077

00:22:15.242 --> 00:22:17.058 and having difficulty breathing.
NOTE Confidence: 0.863845126923077

00:22:17.060 --> 00:22:20.945 So this may not work, especially in advance.
NOTE Confidence: 0.863845126923077

00:22:20.945 --> 00:22:23.020 In in very advanced patients,
NOTE Confidence: 0.863845126923077

00:22:23.020 --> 00:22:26.636 but may help in mild to moderate patients.
NOTE Confidence: 0.863845126923077

00:22:26.640 --> 00:22:30.060 There's a one random miles randomized

NOTE Confidence: 0.863845126923077
00:22:30.060 --> 00:22:35.220 trial of a A this device in a LS.
NOTE Confidence: 0.863845126923077
00:22:35.220 --> 00:22:36.144 Patience very small.
NOTE Confidence: 0.863845126923077
00:22:36.144 --> 00:22:38.300 You'll see you'll get used to seeing
NOTE Confidence: 0.863845126923077
00:22:38.361 --> 00:22:40.689 this very small number of patients in this.
NOTE Confidence: 0.863845126923077
00:22:40.690 --> 00:22:42.760 19 versus 16.
NOTE Confidence: 0.863845126923077
00:22:42.760 --> 00:22:43.450 Untreated,
NOTE Confidence: 0.863845126923077
00:22:43.450 --> 00:22:45.886 and the treated patients said
NOTE Confidence: 0.863845126923077
00:22:45.886 --> 00:22:47.646 that they had some breathlessness.
NOTE Confidence: 0.863845126923077
00:22:47.650 --> 00:22:49.150 They caught up at night,
NOTE Confidence: 0.863845126923077
00:22:49.150 --> 00:22:51.014 more maybe because secretions
NOTE Confidence: 0.863845126923077
00:22:51.014 --> 00:22:53.344 were mobilized but not expelled.
NOTE Confidence: 0.863845126923077
00:22:53.350 --> 00:22:57.140 UM and I declining breathlessness,
NOTE Confidence: 0.863845126923077
00:22:57.140 --> 00:23:00.540 no significant change in forced
NOTE Confidence: 0.863845126923077
00:23:00.540 --> 00:23:01.900 vital capacity.
NOTE Confidence: 0.863845126923077
00:23:01.900 --> 00:23:04.399 I've gone to a lot of conferences,
NOTE Confidence: 0.863845126923077

00:23:04.400 --> 00:23:07.676 they they a lot of people don't use this,
NOTE Confidence: 0.863845126923077

00:23:07.680 --> 00:23:09.144 some do, but not.
NOTE Confidence: 0.863845126923077

00:23:09.144 --> 00:23:09.876 It's not.
NOTE Confidence: 0.863845126923077

00:23:09.880 --> 00:23:12.112 It's not like the first line
NOTE Confidence: 0.863845126923077

00:23:12.112 --> 00:23:13.600 therapy for these patients.
NOTE Confidence: 0.863845126923077

00:23:13.600 --> 00:23:16.696 I know it's in my arsenal,
NOTE Confidence: 0.863845126923077

00:23:16.700 --> 00:23:19.500 but do not use it in the beginning.
NOTE Confidence: 0.863845126923077

00:23:19.500 --> 00:23:22.708 Initially in most patients what we do use
NOTE Confidence: 0.863845126923077

00:23:22.708 --> 00:23:26.447 is the mechanical insufflator exit later,
NOTE Confidence: 0.863845126923077

00:23:26.450 --> 00:23:27.422 the brand name,
NOTE Confidence: 0.863845126923077

00:23:27.422 --> 00:23:30.115 the only one available in EU S is
NOTE Confidence: 0.863845126923077

00:23:30.115 --> 00:23:32.432 cough assist and what this does.
NOTE Confidence: 0.863845126923077

00:23:32.432 --> 00:23:34.044 This applies positive than
NOTE Confidence: 0.863845126923077

00:23:34.044 --> 00:23:36.186 negative pressure to the Airways
NOTE Confidence: 0.863845126923077

00:23:36.186 --> 00:23:37.878 synchronized with the breathing.
NOTE Confidence: 0.863845126923077

00:23:37.880 --> 00:23:39.475 So essentially when people think

NOTE Confidence: 0.863845126923077
00:23:39.475 --> 00:23:41.070 about all these patients on
NOTE Confidence: 0.812938445
00:23:41.128 --> 00:23:43.750 by level 15 / 5, well imagine these patients
NOTE Confidence: 0.812938445
00:23:43.750 --> 00:23:46.140 are getting 40 centimeters of water,
NOTE Confidence: 0.812938445
00:23:46.140 --> 00:23:48.840 for example, of positive pressure.
NOTE Confidence: 0.812938445
00:23:48.840 --> 00:23:50.855 It seems the machine synchronize
NOTE Confidence: 0.812938445
00:23:50.855 --> 00:23:53.459 it with inspiration, and then when
NOTE Confidence: 0.812938445
00:23:53.459 --> 00:23:55.774 the patient switches to expiration,
NOTE Confidence: 0.812938445
00:23:55.780 --> 00:23:59.959 it becomes dramatically drops to minus 40.
NOTE Confidence: 0.812938445
00:23:59.960 --> 00:24:03.227 For example, it can go usually 30 to 50.
NOTE Confidence: 0.812938445
00:24:03.230 --> 00:24:04.733 30 to 60.
NOTE Confidence: 0.812938445
00:24:04.733 --> 00:24:07.238 And this essentially sucks everyone.
NOTE Confidence: 0.812938445
00:24:07.240 --> 00:24:09.688 Everything up out of the airway
NOTE Confidence: 0.812938445
00:24:09.688 --> 00:24:11.320 into the upper airway.
NOTE Confidence: 0.812938445
00:24:11.320 --> 00:24:12.190 Very effective.
NOTE Confidence: 0.812938445
00:24:12.190 --> 00:24:14.800 UM, this cycle Times Now there
NOTE Confidence: 0.812938445

00:24:14.800 --> 00:24:17.845 is there not no need to memorize
NOTE Confidence: 0.812938445

00:24:17.845 --> 00:24:20.608 because now the machines come very
NOTE Confidence: 0.812938445

00:24:20.608 --> 00:24:22.948 synchronized with the breathing.
NOTE Confidence: 0.812938445

00:24:22.950 --> 00:24:24.812 The Micmac in the past you had
NOTE Confidence: 0.812938445

00:24:24.812 --> 00:24:26.848 to time it a little bit more.
NOTE Confidence: 0.812938445

00:24:26.850 --> 00:24:29.202 We recommend that patients use this
NOTE Confidence: 0.812938445

00:24:29.202 --> 00:24:31.999 twice a day and then as needed.
NOTE Confidence: 0.812938445

00:24:32.000 --> 00:24:35.360 This is a an example of a study
NOTE Confidence: 0.812938445

00:24:35.360 --> 00:24:36.830 that was done.
NOTE Confidence: 0.812938445

00:24:36.830 --> 00:24:39.266 This included all types of neuromuscular
NOTE Confidence: 0.812938445

00:24:39.266 --> 00:24:41.682 patients and they compare the pick
NOTE Confidence: 0.812938445

00:24:41.682 --> 00:24:43.860 a card flows generated by the
NOTE Confidence: 0.812938445

00:24:43.860 --> 00:24:45.389 different techniques I mentioned.
NOTE Confidence: 0.812938445

00:24:45.390 --> 00:24:47.058 One of them is on assisted.
NOTE Confidence: 0.812938445

00:24:47.060 --> 00:24:49.195 They first on assisted them
NOTE Confidence: 0.812938445

00:24:49.195 --> 00:24:51.330 with the breath breath stacking,

NOTE Confidence: 0.812938445

00:24:51.330 --> 00:24:54.060 then the breath stacking plus assisted,

NOTE Confidence: 0.812938445

00:24:54.060 --> 00:24:56.640 and then the extra later insulators.

NOTE Confidence: 0.812938445

00:24:56.640 --> 00:24:59.346 So clearly an advantage advantage in

NOTE Confidence: 0.812938445

00:24:59.346 --> 00:25:02.370 terms of of flow. I do want to caution.

NOTE Confidence: 0.812938445

00:25:02.370 --> 00:25:05.100 There's a Cochrane analysis that

NOTE Confidence: 0.812938445

00:25:05.100 --> 00:25:08.890 reviewed this and did not find there's

NOTE Confidence: 0.812938445

00:25:08.890 --> 00:25:12.250 a clinical impact on on whether it

NOTE Confidence: 0.812938445

00:25:12.250 --> 00:25:15.467 was mechanical or just assisted,

NOTE Confidence: 0.812938445

00:25:15.470 --> 00:25:17.380 meaning that reaching a certain

NOTE Confidence: 0.812938445

00:25:17.380 --> 00:25:19.890 level may be a good enough.

NOTE Confidence: 0.812938445

00:25:19.890 --> 00:25:22.312 The advantage of this is that it

NOTE Confidence: 0.812938445

00:25:22.312 --> 00:25:24.730 doesn't require this caregiver attention.

NOTE Confidence: 0.812938445

00:25:24.730 --> 00:25:26.030 It does require caregiver attention

NOTE Confidence: 0.812938445

00:25:26.030 --> 00:25:27.630 to put it on the mask,

NOTE Confidence: 0.812938445

00:25:27.630 --> 00:25:29.706 but it doesn't require beyond the

NOTE Confidence: 0.812938445

00:25:29.706 --> 00:25:31.600 initial training and much more
NOTE Confidence: 0.812938445

00:25:31.600 --> 00:25:32.500 advanced training.
NOTE Confidence: 0.812938445

00:25:32.500 --> 00:25:33.977 So it can be simpler to do,
NOTE Confidence: 0.812938445

00:25:33.980 --> 00:25:35.600 and we tend to do that.
NOTE Confidence: 0.812938445

00:25:35.600 --> 00:25:37.970 The other advantage is my first
NOTE Confidence: 0.812938445

00:25:37.970 --> 00:25:40.299 slide with the Bitter Cup paper
NOTE Confidence: 0.812938445

00:25:40.300 --> 00:25:43.128 I I want to mention that another
NOTE Confidence: 0.812938445

00:25:43.128 --> 00:25:44.889 potential advantage of the
NOTE Confidence: 0.812938445

00:25:44.889 --> 00:25:47.219 mechanical insufflator X of later,
NOTE Confidence: 0.812938445

00:25:47.220 --> 00:25:49.785 which is that that initial
NOTE Confidence: 0.812938445

00:25:49.785 --> 00:25:52.350 positive pressure or 40 year,
NOTE Confidence: 0.812938445

00:25:52.350 --> 00:25:54.486 essentially doing a long recruitment and
NOTE Confidence: 0.812938445

00:25:54.486 --> 00:25:56.970 you're helping a lot with atelectasis,
NOTE Confidence: 0.812938445

00:25:56.970 --> 00:25:58.370 and these patients tend to
NOTE Confidence: 0.812938445

00:25:58.370 --> 00:25:59.770 have a lot of collectors,
NOTE Confidence: 0.812938445

00:25:59.770 --> 00:26:01.550 especially at the long basis

NOTE Confidence: 0.812938445

00:26:01.550 --> 00:26:02.974 because of the diaphragmatic.

NOTE Confidence: 0.812938445

00:26:02.980 --> 00:26:05.374 Weakness and also a collector sees in

NOTE Confidence: 0.812938445

00:26:05.374 --> 00:26:07.809 general because of the shallow breathing,

NOTE Confidence: 0.812938445

00:26:07.810 --> 00:26:11.716 so one of the things that really helps that,

NOTE Confidence: 0.812938445

00:26:11.720 --> 00:26:12.110 uh,

NOTE Confidence: 0.812938445

00:26:12.110 --> 00:26:14.450 even though I don't prescribe it

NOTE Confidence: 0.812938445

00:26:14.450 --> 00:26:16.309 for atelectasis because it's not

NOTE Confidence: 0.812938445

00:26:16.309 --> 00:26:18.493 reimbursed I as soon as the patient

NOTE Confidence: 0.812938445

00:26:18.493 --> 00:26:20.820 has a little bit of trouble coughing

NOTE Confidence: 0.812938445

00:26:20.820 --> 00:26:23.468 that it that it's the patient says yes.

NOTE Confidence: 0.812938445

00:26:23.468 --> 00:26:25.304 Sometimes I have trouble coughing.

NOTE Confidence: 0.812938445

00:26:25.304 --> 00:26:26.952 I immediately prescribe it

NOTE Confidence: 0.812938445

00:26:26.952 --> 00:26:28.600 because it will help.

NOTE Confidence: 0.812938445

00:26:28.600 --> 00:26:33.368 Also with atelectasis this is in that group.

NOTE Confidence: 0.812938445

00:26:33.370 --> 00:26:35.023 It decreased compliance.

NOTE Confidence: 0.812938445

00:26:35.023 --> 00:26:38.329 Patients who survived had normal lung
NOTE Confidence: 0.812938445

00:26:38.329 --> 00:26:41.079 compliance and you know the compliance.
NOTE Confidence: 0.812938445

00:26:41.080 --> 00:26:45.329 They they lower your compliance the less.
NOTE Confidence: 0.812938445

00:26:45.330 --> 00:26:47.241 Able joy you are able to stay
NOTE Confidence: 0.812938445

00:26:47.241 --> 00:26:48.786 less ability to stretch the
NOTE Confidence: 0.812938445

00:26:48.786 --> 00:26:50.784 lungs so they increase work of
NOTE Confidence: 0.812938445

00:26:50.784 --> 00:26:52.729 breathing so they more compliant.
NOTE Confidence: 0.812938445

00:26:52.730 --> 00:26:55.380 Your long chest wall etc.
NOTE Confidence: 0.812938445

00:26:55.380 --> 00:26:57.921 It it it decreases the work of
NOTE Confidence: 0.812938445

00:26:57.921 --> 00:26:59.910 breathing and patients feel better.
NOTE Confidence: 0.812938445

00:26:59.910 --> 00:27:02.350 So this is a UM,
NOTE Confidence: 0.812938445

00:27:02.350 --> 00:27:05.710 an added benefit that I that I think it is
NOTE Confidence: 0.8144542625

00:27:05.798 --> 00:27:06.840 very helpful.
NOTE Confidence: 0.8144542625

00:27:06.840 --> 00:27:09.648 So what are factors affecting sleep?
NOTE Confidence: 0.8144542625

00:27:09.650 --> 00:27:12.914 And I will then later concentrate on sleep
NOTE Confidence: 0.8144542625

00:27:12.914 --> 00:27:15.340 disorder breathing but in general imagine.

NOTE Confidence: 0.8144542625

00:27:15.340 --> 00:27:18.308 I diagnosis and getting a diagnosis that

NOTE Confidence: 0.8144542625

00:27:18.308 --> 00:27:21.700 has so many significant consequences.

NOTE Confidence: 0.8144542625

00:27:21.700 --> 00:27:23.242 Patients may have some problems and

NOTE Confidence: 0.8144542625

00:27:23.242 --> 00:27:24.784 they get excited. These problems

NOTE Confidence: 0.8144542625

00:27:24.784 --> 00:27:27.076 get exacerbated or they are new.

NOTE Confidence: 0.8144542625

00:27:27.080 --> 00:27:29.390 Depression, anxiety, insomnia,

NOTE Confidence: 0.8144542625

00:27:29.390 --> 00:27:32.217 pain, muscle cramps, contractors.

NOTE Confidence: 0.8144542625

00:27:32.217 --> 00:27:36.353 A big one is choking with his excessive

NOTE Confidence: 0.8144542625

00:27:36.353 --> 00:27:39.181 airway secretions for bulbar patients.

NOTE Confidence: 0.8144542625

00:27:39.181 --> 00:27:42.310 Inability to move in bed I just

NOTE Confidence: 0.8144542625

00:27:42.399 --> 00:27:45.837 position confinement in bed in activity.

NOTE Confidence: 0.8144542625

00:27:45.840 --> 00:27:46.602 Cognitive dysfunction.

NOTE Confidence: 0.8144542625

00:27:46.602 --> 00:27:50.187 You name it and there is A and usually

NOTE Confidence: 0.8144542625

00:27:50.187 --> 00:27:53.400 there's two three factors in every patient.

NOTE Confidence: 0.8144542625

00:27:53.400 --> 00:27:56.053 Sometimes there's one, but it's a big

NOTE Confidence: 0.8144542625

00:27:56.053 --> 00:27:57.750 community combination of factors,
NOTE Confidence: 0.8144542625

00:27:57.750 --> 00:28:01.500 so in so it's very challenging
NOTE Confidence: 0.8144542625

00:28:01.500 --> 00:28:04.910 to manage these patients and we.
NOTE Confidence: 0.8144542625

00:28:04.910 --> 00:28:05.720 As mentioned,
NOTE Confidence: 0.8144542625

00:28:05.720 --> 00:28:09.250 have to be aware that we are aware that
NOTE Confidence: 0.8144542625

00:28:09.250 --> 00:28:11.125 there are multiple concomitant factors,
NOTE Confidence: 0.8144542625

00:28:11.130 --> 00:28:15.505 so we have to address them one by one,
NOTE Confidence: 0.8144542625

00:28:15.505 --> 00:28:16.415 measure that.
NOTE Confidence: 0.8144542625

00:28:16.415 --> 00:28:18.690 I have found incredibly useful
NOTE Confidence: 0.8144542625

00:28:18.690 --> 00:28:21.299 for these patients is recommending
NOTE Confidence: 0.8144542625

00:28:21.299 --> 00:28:23.999 a wedge and caribair elevation,
NOTE Confidence: 0.8144542625

00:28:24.000 --> 00:28:25.460 and we can start.
NOTE Confidence: 0.8144542625

00:28:25.460 --> 00:28:27.940 This can be bought online anywhere 20,
NOTE Confidence: 0.8144542625

00:28:27.940 --> 00:28:28.802 thirty, \$40.
NOTE Confidence: 0.8144542625

00:28:28.802 --> 00:28:31.634 I do find it more useful than
NOTE Confidence: 0.8144542625

00:28:31.634 --> 00:28:33.474 the pillows because the pillows

NOTE Confidence: 0.8144542625

00:28:33.474 --> 00:28:34.850 move throughout the night,

NOTE Confidence: 0.8144542625

00:28:34.850 --> 00:28:37.902 but this is very useful because this

NOTE Confidence: 0.8144542625

00:28:37.902 --> 00:28:41.757 helps a lot with the airway secretions.

NOTE Confidence: 0.8144542625

00:28:41.760 --> 00:28:44.350 That the patients app and sometimes that's

NOTE Confidence: 0.8144542625

00:28:44.350 --> 00:28:46.619 the only complaint that patients are.

NOTE Confidence: 0.8144542625

00:28:46.620 --> 00:28:48.258 I wake up all the time,

NOTE Confidence: 0.8144542625

00:28:48.260 --> 00:28:50.780 coughing and gagging a because of

NOTE Confidence: 0.8144542625

00:28:50.780 --> 00:28:53.040 secretions going into the airway.

NOTE Confidence: 0.8144542625

00:28:53.040 --> 00:28:54.264 So I wedged.

NOTE Confidence: 0.8144542625

00:28:54.264 --> 00:28:57.120 We start with 20 degrees or 30

NOTE Confidence: 0.8144542625

00:28:57.220 --> 00:28:59.880 and it's incredibly helpful.

NOTE Confidence: 0.8144542625

00:28:59.880 --> 00:29:03.140 And actually it's also helpful.

NOTE Confidence: 0.8144542625

00:29:03.140 --> 00:29:05.390 Sometimes I don't want it to be that helpful.

NOTE Confidence: 0.8144542625

00:29:05.390 --> 00:29:07.230 'cause I want the patient to be a

NOTE Confidence: 0.8144542625

00:29:07.230 --> 00:29:08.787 non invasive ventilation and then the

NOTE Confidence: 0.8144542625

00:29:08.787 --> 00:29:10.676 patient is like all since I started
NOTE Confidence: 0.8144542625

00:29:10.676 --> 00:29:12.308 the wedge I sleep more better.
NOTE Confidence: 0.8144542625

00:29:12.310 --> 00:29:12.726 Much better,
NOTE Confidence: 0.8144542625

00:29:12.726 --> 00:29:14.182 I don't have any shortness of breath.
NOTE Confidence: 0.8144542625

00:29:14.190 --> 00:29:16.494 Is sleeping because it elevates and
NOTE Confidence: 0.8144542625

00:29:16.494 --> 00:29:19.119 and it helps with the orthopnea.
NOTE Confidence: 0.8144542625

00:29:19.120 --> 00:29:21.024 So in a way, it it it.
NOTE Confidence: 0.8144542625

00:29:21.030 --> 00:29:23.030 It's I think in any in every way.
NOTE Confidence: 0.8144542625

00:29:23.030 --> 00:29:25.802 It's very helpful and we of course
NOTE Confidence: 0.8144542625

00:29:25.802 --> 00:29:28.140 when they qualify a hospital bed
NOTE Confidence: 0.8144542625

00:29:28.140 --> 00:29:30.894 is very difficult to do behavioral
NOTE Confidence: 0.8144542625

00:29:30.894 --> 00:29:32.730 interventions in these patients
NOTE Confidence: 0.8144542625

00:29:32.802 --> 00:29:35.460 because this what you think about
NOTE Confidence: 0.8144542625

00:29:35.460 --> 00:29:36.346 stimulus control.
NOTE Confidence: 0.8144542625

00:29:36.350 --> 00:29:38.614 It's not like they can get out of
NOTE Confidence: 0.8144542625

00:29:38.614 --> 00:29:41.363 bed and whenever they want sleep

NOTE Confidence: 0.8144542625

00:29:41.363 --> 00:29:43.298 restrictions, well you know what?

NOTE Confidence: 0.8144542625

00:29:43.298 --> 00:29:45.805 The caregiver uses a Hoyer lift and

NOTE Confidence: 0.8144542625

00:29:45.805 --> 00:29:48.073 puts them in bed at 8:00 o'clock

NOTE Confidence: 0.8144542625

00:29:48.073 --> 00:29:50.148 and before the daytime nurse leaves

NOTE Confidence: 0.8144542625

00:29:50.148 --> 00:29:52.738 so they are there in bed from 8:00

NOTE Confidence: 0.8144542625

00:29:52.738 --> 00:29:54.691 to 8:00 o'clock at night to 8:00

NOTE Confidence: 0.8144542625

00:29:54.691 --> 00:29:55.868 o'clock in the morning,

NOTE Confidence: 0.8144542625

00:29:55.870 --> 00:29:57.440 whether they're sleeping or not.

NOTE Confidence: 0.8144542625

00:29:57.440 --> 00:29:59.110 So it's very challenging and,

NOTE Confidence: 0.8144542625

00:29:59.110 --> 00:30:01.390 and that's something that of interest

NOTE Confidence: 0.8144542625

00:30:01.390 --> 00:30:04.260 in that at some point would like

NOTE Confidence: 0.8144542625

00:30:04.260 --> 00:30:06.505 to learn more of what behavioral

NOTE Confidence: 0.8144542625

00:30:06.505 --> 00:30:08.340 interventions are done on other

NOTE Confidence: 0.8144542625

00:30:08.403 --> 00:30:10.387 conditions with limited mobility,

NOTE Confidence: 0.8144542625

00:30:10.390 --> 00:30:13.090 like stroke, etc. These patients.

NOTE Confidence: 0.8144542625

00:30:13.090 --> 00:30:16.818 One thing that we do address that is.
NOTE Confidence: 0.8144542625

00:30:16.820 --> 00:30:19.880 Easily addressable, although not easily done,
NOTE Confidence: 0.8144542625

00:30:19.880 --> 00:30:22.428 is that we really focus on avoiding
NOTE Confidence: 0.8144542625

00:30:22.428 --> 00:30:24.100 the daytime sleeping. These patients.
NOTE Confidence: 0.8144542625

00:30:24.100 --> 00:30:26.420 They say they they keep the red partner,
NOTE Confidence: 0.8144542625

00:30:26.420 --> 00:30:28.140 their family awake at night,
NOTE Confidence: 0.840570558181818

00:30:28.140 --> 00:30:29.790 but it's because they're napping in
NOTE Confidence: 0.840570558181818

00:30:29.790 --> 00:30:32.020 and out during the day. So we really,
NOTE Confidence: 0.840570558181818

00:30:32.020 --> 00:30:33.760 really stress at the very least,
NOTE Confidence: 0.840570558181818

00:30:33.760 --> 00:30:35.482 don't sleep during the day as
NOTE Confidence: 0.840570558181818

00:30:35.482 --> 00:30:37.778 much as possible, of course,
NOTE Confidence: 0.840570558181818

00:30:37.778 --> 00:30:39.920 UM, better adjustments,
NOTE Confidence: 0.840570558181818

00:30:39.920 --> 00:30:42.220 occupational therapy can help
NOTE Confidence: 0.840570558181818

00:30:42.220 --> 00:30:45.670 their son a different types of
NOTE Confidence: 0.840570558181818

00:30:45.670 --> 00:30:49.286 blankets and different surfaces.
NOTE Confidence: 0.840570558181818

00:30:49.286 --> 00:30:52.934 ETC. UM medications we sometimes

NOTE Confidence: 0.840570558181818
00:30:52.934 --> 00:30:56.364 use it as dual intent.
NOTE Confidence: 0.840570558181818
00:30:56.370 --> 00:30:57.429 So for example,
NOTE Confidence: 0.840570558181818
00:30:57.429 --> 00:31:00.477 if we have a patient that is having
NOTE Confidence: 0.840570558181818
00:31:00.477 --> 00:31:03.459 increased salivation and is a little
NOTE Confidence: 0.840570558181818
00:31:03.459 --> 00:31:06.717 depressed and also is having some
NOTE Confidence: 0.840570558181818
00:31:06.717 --> 00:31:08.961 trouble initiating sleep sometimes
NOTE Confidence: 0.840570558181818
00:31:08.961 --> 00:31:11.688 amitriptyline may be a good option.
NOTE Confidence: 0.840570558181818
00:31:11.688 --> 00:31:13.072 Will have a anticholinergic
NOTE Confidence: 0.840570558181818
00:31:13.072 --> 00:31:14.810 effects dry their secretions,
NOTE Confidence: 0.840570558181818
00:31:14.810 --> 00:31:16.987 maybe cause a little bit of sleepiness.
NOTE Confidence: 0.840570558181818
00:31:16.990 --> 00:31:19.076 Maybe treat a little bit their depression.
NOTE Confidence: 0.840570558181818
00:31:19.080 --> 00:31:21.838 So sometimes they the same with clonazepam.
NOTE Confidence: 0.840570558181818
00:31:21.840 --> 00:31:24.460 Sometimes people have these contractors
NOTE Confidence: 0.840570558181818
00:31:24.460 --> 00:31:26.556 and stiffness and hypertonicity
NOTE Confidence: 0.840570558181818
00:31:26.556 --> 00:31:29.316 and I have a little bit of anxiety.
NOTE Confidence: 0.840570558181818

00:31:29.320 --> 00:31:30.730 A little bit of insomnia.
NOTE Confidence: 0.840570558181818

00:31:30.730 --> 00:31:33.831 So in you have to be careful
NOTE Confidence: 0.840570558181818

00:31:33.831 --> 00:31:35.160 for respiratory depression,
NOTE Confidence: 0.840570558181818

00:31:35.160 --> 00:31:37.848 but that's I mean small doses
NOTE Confidence: 0.840570558181818

00:31:37.848 --> 00:31:39.320 of benzodiazepine's etc.
NOTE Confidence: 0.840570558181818

00:31:39.320 --> 00:31:42.578 They usually well tolerated and we do
NOTE Confidence: 0.840570558181818

00:31:42.578 --> 00:31:45.940 tend to be and probably more generous with,
NOTE Confidence: 0.840570558181818

00:31:45.940 --> 00:31:47.920 the sleep medications in the LS
NOTE Confidence: 0.840570558181818

00:31:47.920 --> 00:31:49.750 clinic that in sleep clinic.
NOTE Confidence: 0.840570558181818

00:31:49.750 --> 00:31:52.630 So if you cannot say well,
NOTE Confidence: 0.840570558181818

00:31:52.630 --> 00:31:54.862 try this and see me in three months and
NOTE Confidence: 0.840570558181818

00:31:54.862 --> 00:31:56.926 then we'll reassess in three months.
NOTE Confidence: 0.840570558181818

00:31:56.930 --> 00:31:58.834 They may be there so you wanna
NOTE Confidence: 0.840570558181818

00:31:58.834 --> 00:32:00.643 give improve the quality of life
NOTE Confidence: 0.840570558181818

00:32:00.643 --> 00:32:02.198 and make them sleep better.
NOTE Confidence: 0.840570558181818

00:32:02.200 --> 00:32:04.504 So I I do have a lower threshold

NOTE Confidence: 0.840570558181818
00:32:04.504 --> 00:32:06.668 to give a a more medications.
NOTE Confidence: 0.840570558181818
00:32:06.670 --> 00:32:07.526 Not immediately.
NOTE Confidence: 0.840570558181818
00:32:07.526 --> 00:32:10.522 I necessarily I do want to address
NOTE Confidence: 0.840570558181818
00:32:10.522 --> 00:32:12.149 some behavioral interventions
NOTE Confidence: 0.840570558181818
00:32:12.149 --> 00:32:14.934 such as the daytime sleep.
NOTE Confidence: 0.840570558181818
00:32:14.940 --> 00:32:16.920 So sleep disorders in a LS.
NOTE Confidence: 0.840570558181818
00:32:16.920 --> 00:32:20.160 There's very little study.
NOTE Confidence: 0.840570558181818
00:32:20.160 --> 00:32:22.760 This is a study of 76 patients.
NOTE Confidence: 0.840570558181818
00:32:22.760 --> 00:32:23.730 For example,
NOTE Confidence: 0.840570558181818
00:32:23.730 --> 00:32:26.520 they found RLSA was more frequent.
NOTE Confidence: 0.840570558181818
00:32:26.520 --> 00:32:28.795 I haven't found this this
NOTE Confidence: 0.840570558181818
00:32:28.795 --> 00:32:31.409 big difference in my clinic,
NOTE Confidence: 0.840570558181818
00:32:31.410 --> 00:32:34.119 but there's more studies to be done.
NOTE Confidence: 0.840570558181818
00:32:34.120 --> 00:32:35.989 And of course, this is 41 patients.
NOTE Confidence: 0.840570558181818
00:32:35.990 --> 00:32:38.498 They they, of course you know.
NOTE Confidence: 0.840570558181818

00:32:38.500 --> 00:32:39.388 I say, of course,
NOTE Confidence: 0.840570558181818

00:32:39.388 --> 00:32:40.720 maybe 'cause I'm used to it,
NOTE Confidence: 0.840570558181818

00:32:40.720 --> 00:32:43.336 but they have this PSG evidence
NOTE Confidence: 0.840570558181818

00:32:43.336 --> 00:32:45.827 of decreased quality of sleep and
NOTE Confidence: 0.840570558181818

00:32:45.827 --> 00:32:48.491 then then you go down to the the
NOTE Confidence: 0.840570558181818

00:32:48.571 --> 00:32:51.026 lower numbers where this study.
NOTE Confidence: 0.840570558181818

00:32:51.030 --> 00:32:54.775 Of 22 patients versus for a behavior
NOTE Confidence: 0.840570558181818

00:32:54.775 --> 00:32:58.660 disorder where we took two patients or
NOTE Confidence: 0.840570558181818

00:32:58.660 --> 00:33:01.490 with events, sleep without or atonia.
NOTE Confidence: 0.840570558181818

00:33:01.490 --> 00:33:04.100 I mean there's very little information
NOTE Confidence: 0.840570558181818

00:33:04.176 --> 00:33:07.076 and we need to do a more study about this.
NOTE Confidence: 0.840570558181818

00:33:07.080 --> 00:33:09.505 But there's some indications of
NOTE Confidence: 0.840570558181818

00:33:09.505 --> 00:33:11.930 some disorders being more frequent.
NOTE Confidence: 0.840570558181818

00:33:11.930 --> 00:33:14.464 We did a study in our clinic,
NOTE Confidence: 0.840570558181818

00:33:14.470 --> 00:33:17.095 43 newly diagnosed patients compared
NOTE Confidence: 0.840570558181818

00:33:17.095 --> 00:33:19.720 to 43 controls we administer.

NOTE Confidence: 0.840570558181818

00:33:19.720 --> 00:33:20.742 The Pittsburgh.

NOTE Confidence: 0.840570558181818

00:33:20.742 --> 00:33:23.297 The Back Depression inventory inventory.

NOTE Confidence: 0.840570558181818

00:33:23.300 --> 00:33:23.740 Two,

NOTE Confidence: 0.840570558181818

00:33:23.740 --> 00:33:25.940 the Epworth and our functional

NOTE Confidence: 0.840570558181818

00:33:25.940 --> 00:33:28.030 rating scale for a LS.

NOTE Confidence: 0.840570558181818

00:33:28.030 --> 00:33:31.214 First of all we did find a small

NOTE Confidence: 0.840570558181818

00:33:31.214 --> 00:33:35.098 increase in in the in in worse sleep quality.

NOTE Confidence: 0.840570558181818

00:33:35.100 --> 00:33:37.520 Higher Pittsburgh in the LS

NOTE Confidence: 0.840570558181818

00:33:37.520 --> 00:33:39.456 patients compared to control.

NOTE Confidence: 0.840570558181818

00:33:39.460 --> 00:33:42.022 We also if we define poor sleep

NOTE Confidence: 0.840570558181818

00:33:42.022 --> 00:33:45.096 quality as more than five the

NOTE Confidence: 0.840570558181818

00:33:45.096 --> 00:33:47.978 score 63% of the LS patients had

NOTE Confidence: 0.840570558181818

00:33:47.978 --> 00:33:50.010 poor sleep quality compared to 37.

NOTE Confidence: 0.840570558181818

00:33:50.010 --> 00:33:51.450 In terms of sleepiness,

NOTE Confidence: 0.840570558181818

00:33:51.450 --> 00:33:55.057 we didn't find as a I mean there was a.

NOTE Confidence: 0.840570558181818

00:33:55.060 --> 00:33:57.466 Slightly slight difference,
NOTE Confidence: 0.840570558181818

00:33:57.466 --> 00:34:01.476 but not this the this
NOTE Confidence: 0.886388759166667

00:34:01.480 --> 00:34:02.314 incredible difference.
NOTE Confidence: 0.886388759166667

00:34:02.314 --> 00:34:04.816 However you do see the individual
NOTE Confidence: 0.886388759166667

00:34:04.816 --> 00:34:06.370 patients that are sleepy,
NOTE Confidence: 0.886388759166667

00:34:06.370 --> 00:34:07.710 not just the major difference
NOTE Confidence: 0.886388759166667

00:34:07.710 --> 00:34:09.450 of the group as a whole.
NOTE Confidence: 0.886388759166667

00:34:09.450 --> 00:34:12.299 We did find and these are what
NOTE Confidence: 0.886388759166667

00:34:12.299 --> 00:34:15.190 is consider a weak correlation.
NOTE Confidence: 0.886388759166667

00:34:15.190 --> 00:34:17.976 But we did find a correlation between
NOTE Confidence: 0.886388759166667

00:34:17.976 --> 00:34:19.901 the depressive symptoms and the
NOTE Confidence: 0.886388759166667

00:34:19.901 --> 00:34:21.893 Pittsburgh and the inability to turn
NOTE Confidence: 0.886388759166667

00:34:21.893 --> 00:34:24.608 in bed which we actually found very.
NOTE Confidence: 0.886388759166667

00:34:24.608 --> 00:34:26.778 Trusting and these associations we
NOTE Confidence: 0.886388759166667

00:34:26.778 --> 00:34:30.284 we were happy to even find a weak
NOTE Confidence: 0.886388759166667

00:34:30.284 --> 00:34:31.988 association because as mentioned,

NOTE Confidence: 0.886388759166667
00:34:31.990 --> 00:34:33.830 there's so many factors interfering
NOTE Confidence: 0.886388759166667
00:34:33.830 --> 00:34:34.566 with sleep.
NOTE Confidence: 0.886388759166667
00:34:34.570 --> 00:34:38.197 That is, it will be in a small group
NOTE Confidence: 0.886388759166667
00:34:38.197 --> 00:34:41.150 difficult to find one factor that
NOTE Confidence: 0.886388759166667
00:34:41.150 --> 00:34:43.605 has a really strong correlation.
NOTE Confidence: 0.886388759166667
00:34:43.610 --> 00:34:46.226 And as an example of the inability to
NOTE Confidence: 0.886388759166667
00:34:46.226 --> 00:34:50.070 turn in bed, this is a Pittsburgh score.
NOTE Confidence: 0.886388759166667
00:34:50.070 --> 00:34:52.716 UM, in patients that have little
NOTE Confidence: 0.886388759166667
00:34:52.716 --> 00:34:55.140 to no trouble turning in bed.
NOTE Confidence: 0.886388759166667
00:34:55.140 --> 00:34:57.756 Compared to those that cannot turn in bed,
NOTE Confidence: 0.886388759166667
00:34:57.760 --> 00:34:59.623 and as you can see, Chris,
NOTE Confidence: 0.886388759166667
00:34:59.623 --> 00:35:02.864 a significant difference in this in the
NOTE Confidence: 0.886388759166667
00:35:02.864 --> 00:35:06.599 in the score and that got me thinking,
NOTE Confidence: 0.886388759166667
00:35:06.600 --> 00:35:08.464 wow, you know you turn all the time.
NOTE Confidence: 0.886388759166667
00:35:08.470 --> 00:35:10.618 These patients sometimes are putting bad
NOTE Confidence: 0.886388759166667

00:35:10.618 --> 00:35:13.597 on their back and they cannot move anyway.

NOTE Confidence: 0.886388759166667

00:35:13.600 --> 00:35:14.806 They have to.

NOTE Confidence: 0.886388759166667

00:35:14.806 --> 00:35:16.816 Wake up their their bed

NOTE Confidence: 0.886388759166667

00:35:16.816 --> 00:35:18.968 partner to have them move.

NOTE Confidence: 0.886388759166667

00:35:18.970 --> 00:35:20.758 Sometimes they don't want to wait

NOTE Confidence: 0.886388759166667

00:35:20.758 --> 00:35:22.659 because I don't wanna bother them,

NOTE Confidence: 0.886388759166667

00:35:22.660 --> 00:35:23.845 so it's it's.

NOTE Confidence: 0.886388759166667

00:35:23.845 --> 00:35:26.215 It's very challenging for bed partner

NOTE Confidence: 0.886388759166667

00:35:26.215 --> 00:35:30.110 and if patient so this is the best

NOTE Confidence: 0.886388759166667

00:35:30.110 --> 00:35:34.940 study I have found on on PSG and ALS.

NOTE Confidence: 0.886388759166667

00:35:34.940 --> 00:35:36.734 And actually I think this is

NOTE Confidence: 0.886388759166667

00:35:36.734 --> 00:35:38.340 like the the reference study.

NOTE Confidence: 0.886388759166667

00:35:38.340 --> 00:35:40.530 Before that there were there

NOTE Confidence: 0.886388759166667

00:35:40.530 --> 00:35:42.786 was a scattering of multiple

NOTE Confidence: 0.886388759166667

00:35:42.786 --> 00:35:44.770 studies with 1020 patients.

NOTE Confidence: 0.886388759166667

00:35:44.770 --> 00:35:45.628 This I think.

NOTE Confidence: 0.886388759166667
00:35:45.628 --> 00:35:47.344 Answered a lot of questions 'cause
NOTE Confidence: 0.886388759166667
00:35:47.344 --> 00:35:48.550 this private studies.
NOTE Confidence: 0.886388759166667
00:35:48.550 --> 00:35:51.574 This prior studies had a lot of
NOTE Confidence: 0.886388759166667
00:35:51.574 --> 00:35:52.438 contradictory information.
NOTE Confidence: 0.886388759166667
00:35:52.440 --> 00:35:55.128 In essence they always say was
NOTE Confidence: 0.886388759166667
00:35:55.128 --> 00:35:57.962 found in 46% of patients nocturnal
NOTE Confidence: 0.886388759166667
00:35:57.962 --> 00:36:00.860 hypoventilation in 40 in both conditions.
NOTE Confidence: 0.886388759166667
00:36:00.860 --> 00:36:01.856 In 22.
NOTE Confidence: 0.886388759166667
00:36:01.856 --> 00:36:05.342 If you want to say mild OSA,
NOTE Confidence: 0.886388759166667
00:36:05.350 --> 00:36:08.710 we don't care about for mother and severe,
NOTE Confidence: 0.886388759166667
00:36:08.710 --> 00:36:10.920 it was 23% of patients.
NOTE Confidence: 0.886388759166667
00:36:10.920 --> 00:36:12.684 Central sleep apnea are
NOTE Confidence: 0.886388759166667
00:36:12.684 --> 00:36:14.007 not clinically significant,
NOTE Confidence: 0.886388759166667
00:36:14.010 --> 00:36:15.318 different to what was.
NOTE Confidence: 0.886388759166667
00:36:15.318 --> 00:36:18.099 Reported in a couple of small case series.
NOTE Confidence: 0.886388759166667

00:36:18.100 --> 00:36:20.466 One thing that I found very interesting
NOTE Confidence: 0.886388759166667

00:36:20.466 --> 00:36:23.036 is that one third of the patients
NOTE Confidence: 0.886388759166667

00:36:23.036 --> 00:36:25.262 will battle capacities that may be
NOTE Confidence: 0.886388759166667

00:36:25.336 --> 00:36:27.656 considered normal or almost normal.
NOTE Confidence: 0.886388759166667

00:36:27.660 --> 00:36:29.508 Had nocturnal hypoventilation,
NOTE Confidence: 0.886388759166667

00:36:29.508 --> 00:36:31.249 but they, interestingly,
NOTE Confidence: 0.886388759166667

00:36:31.249 --> 00:36:35.321 half of the patients with a vital capacity
NOTE Confidence: 0.886388759166667

00:36:35.321 --> 00:36:39.037 less than 50 had nocturnal hypoventilation,
NOTE Confidence: 0.886388759166667

00:36:39.040 --> 00:36:42.016 but almost hardly not so it's it's it's.
NOTE Confidence: 0.886388759166667

00:36:42.020 --> 00:36:43.380 It's kind of I.
NOTE Confidence: 0.886388759166667

00:36:43.380 --> 00:36:45.080 I would be for this.
NOTE Confidence: 0.886388759166667

00:36:45.080 --> 00:36:46.010 I would have.
NOTE Confidence: 0.886388759166667

00:36:46.010 --> 00:36:47.870 Assumed a higher a higher number
NOTE Confidence: 0.886388759166667

00:36:47.870 --> 00:36:50.129 with people with low vital capacity,
NOTE Confidence: 0.886388759166667

00:36:50.130 --> 00:36:53.010 but this is not the only measurement that
NOTE Confidence: 0.886388759166667

00:36:53.010 --> 00:36:55.640 that comes in these patients and this

NOTE Confidence: 0.886388759166667
00:36:55.640 --> 00:36:58.590 kind of mentions that they pulse oximetry.
NOTE Confidence: 0.886388759166667
00:36:58.590 --> 00:37:01.985 It's helpful and we do it sometimes,
NOTE Confidence: 0.886388759166667
00:37:01.990 --> 00:37:05.405 but it's not as sensitive
NOTE Confidence: 0.886388759166667
00:37:05.405 --> 00:37:07.454 as measuring ventilation.
NOTE Confidence: 0.886388759166667
00:37:07.460 --> 00:37:09.412 This is another study.
NOTE Confidence: 0.886388759166667
00:37:09.412 --> 00:37:11.640 Twenty patients with OSA 22
NOTE Confidence: 0.886388759166667
00:37:11.640 --> 00:37:13.540 without always say they found,
NOTE Confidence: 0.886388759166667
00:37:13.540 --> 00:37:16.100 and this is the months to death
NOTE Confidence: 0.886388759166667
00:37:16.100 --> 00:37:17.740 to death or tracheostomy.
NOTE Confidence: 0.886388759166667
00:37:17.740 --> 00:37:21.060 The group had always say was 15.9 months.
NOTE Confidence: 0.886388759166667
00:37:21.060 --> 00:37:24.005 The group that noise, say 26 months,
NOTE Confidence: 0.886388759166667
00:37:24.005 --> 00:37:27.080 they there is no explanation.
NOTE Confidence: 0.886388759166667
00:37:27.080 --> 00:37:28.289 They authors thought.
NOTE Confidence: 0.886388759166667
00:37:28.289 --> 00:37:28.692 Well,
NOTE Confidence: 0.886388759166667
00:37:28.692 --> 00:37:31.110 maybe this is a different pheno
NOTE Confidence: 0.816759164166667

00:37:31.184 --> 00:37:34.355 type etc. But it's just kind of
NOTE Confidence: 0.816759164166667

00:37:34.355 --> 00:37:36.910 intriguing and suggestive and needs
NOTE Confidence: 0.816759164166667

00:37:37.007 --> 00:37:39.697 more larger groups to confirm.
NOTE Confidence: 0.816759164166667

00:37:39.700 --> 00:37:41.968 This is one of those things that with the
NOTE Confidence: 0.816759164166667

00:37:41.968 --> 00:37:44.026 with the REM sleep and non REM sleep.
NOTE Confidence: 0.816759164166667

00:37:44.030 --> 00:37:45.812 When you have this acrobatic weakness
NOTE Confidence: 0.816759164166667

00:37:45.812 --> 00:37:47.796 and then you lose your accessory
NOTE Confidence: 0.816759164166667

00:37:47.796 --> 00:37:49.646 muscles it becomes very dramatic.
NOTE Confidence: 0.816759164166667

00:37:49.650 --> 00:37:52.114 This is a chest and abdomen and the
NOTE Confidence: 0.816759164166667

00:37:52.114 --> 00:37:54.817 flow and you can see in non REM pretty
NOTE Confidence: 0.816759164166667

00:37:54.817 --> 00:37:57.645 good and as soon as they go into R.E.M.
NOTE Confidence: 0.816759164166667

00:37:57.650 --> 00:38:00.515 A pretty pretty pretty decreased
NOTE Confidence: 0.816759164166667

00:38:00.515 --> 00:38:02.807 movement because the accessory
NOTE Confidence: 0.816759164166667

00:38:02.807 --> 00:38:05.894 muscles are are lost so this is a
NOTE Confidence: 0.816759164166667

00:38:05.894 --> 00:38:08.310 this is something to keep in mind.
NOTE Confidence: 0.816759164166667

00:38:08.310 --> 00:38:09.710 I have seen some.

NOTE Confidence: 0.816759164166667
00:38:09.710 --> 00:38:11.610 Patients that sometimes they
NOTE Confidence: 0.816759164166667
00:38:11.610 --> 00:38:15.210 may get that diagnosed with OSA,
NOTE Confidence: 0.816759164166667
00:38:15.210 --> 00:38:16.740 but they don't have always say
NOTE Confidence: 0.816759164166667
00:38:16.740 --> 00:38:17.760 they just have this.
NOTE Confidence: 0.816759164166667
00:38:17.760 --> 00:38:20.100 They have decreasing in in the
NOTE Confidence: 0.816759164166667
00:38:20.100 --> 00:38:22.722 flow and their studies at and it
NOTE Confidence: 0.816759164166667
00:38:22.722 --> 00:38:24.684 gets marked as a high problem.
NOTE Confidence: 0.816759164166667
00:38:24.690 --> 00:38:28.560 But so I I'm sometimes like we said at
NOTE Confidence: 0.816759164166667
00:38:28.560 --> 00:38:31.150 23% may have severe or moderate OSA,
NOTE Confidence: 0.816759164166667
00:38:31.150 --> 00:38:33.352 but sometimes I'm a little bit
NOTE Confidence: 0.816759164166667
00:38:33.352 --> 00:38:35.331 suspicious when I see someone
NOTE Confidence: 0.816759164166667
00:38:35.331 --> 00:38:37.917 that only has hypopneas only has
NOTE Confidence: 0.816759164166667
00:38:37.917 --> 00:38:39.570 the hypopneas during RAM.
NOTE Confidence: 0.816759164166667
00:38:39.570 --> 00:38:43.620 And there's no snoring, so it to keep IE.
NOTE Confidence: 0.816759164166667
00:38:43.620 --> 00:38:46.239 So I sometimes.
NOTE Confidence: 0.816759164166667

00:38:46.240 --> 00:38:51.958 Maybe a little bit more in, and even if.
NOTE Confidence: 0.816759164166667

00:38:51.960 --> 00:38:54.384 With other parts may put in
NOTE Confidence: 0.816759164166667

00:38:54.384 --> 00:38:56.000 OSA as a diagnosis.
NOTE Confidence: 0.816759164166667

00:38:56.000 --> 00:38:57.900 I do make a comment.
NOTE Confidence: 0.816759164166667

00:38:57.900 --> 00:38:59.460 Listen, this may be likely.
NOTE Confidence: 0.816759164166667

00:38:59.460 --> 00:38:59.951 Hyperventilation,
NOTE Confidence: 0.816759164166667

00:38:59.951 --> 00:39:02.406 based on what we saw.
NOTE Confidence: 0.816759164166667

00:39:02.410 --> 00:39:04.906 This is a so that person knows not
NOTE Confidence: 0.816759164166667

00:39:04.906 --> 00:39:07.729 to go in and slap her as sleep
NOTE Confidence: 0.816759164166667

00:39:07.729 --> 00:39:09.920 up of 15 centimeters of water.
NOTE Confidence: 0.816759164166667

00:39:09.920 --> 00:39:13.259 Uhm, this is a very nocturnal oximetry.
NOTE Confidence: 0.816759164166667

00:39:13.260 --> 00:39:15.744 Seeing that another way of showing
NOTE Confidence: 0.816759164166667

00:39:15.744 --> 00:39:18.464 the dramatic drop in in ventilation
NOTE Confidence: 0.816759164166667

00:39:18.464 --> 00:39:20.914 or oxygenation that happens during
NOTE Confidence: 0.816759164166667

00:39:20.914 --> 00:39:23.968 rain sleep very remarkable in March,
NOTE Confidence: 0.816759164166667

00:39:23.970 --> 00:39:26.346 and because of what I mentioned as you know,

NOTE Confidence: 0.816759164166667
00:39:26.350 --> 00:39:28.198 REM sleep tends to occur this
NOTE Confidence: 0.816759164166667
00:39:28.198 --> 00:39:29.890 later part of the night.
NOTE Confidence: 0.816759164166667
00:39:29.890 --> 00:39:33.787 So This is why split night PSG is not
NOTE Confidence: 0.816759164166667
00:39:33.787 --> 00:39:37.325 ideal for these patients in this area.
NOTE Confidence: 0.816759164166667
00:39:37.325 --> 00:39:40.068 For this group of 47 patients, 40.
NOTE Confidence: 0.816759164166667
00:39:40.068 --> 00:39:42.276 3% had an incomplete split night
NOTE Confidence: 0.816759164166667
00:39:42.276 --> 00:39:44.804 and the major reason was the
NOTE Confidence: 0.816759164166667
00:39:44.804 --> 00:39:47.054 absence of significant ramps lead.
NOTE Confidence: 0.816759164166667
00:39:47.060 --> 00:39:47.484 Conversely,
NOTE Confidence: 0.816759164166667
00:39:47.484 --> 00:39:50.576 you can argue that 57% it was effective,
NOTE Confidence: 0.816759164166667
00:39:50.576 --> 00:39:53.640 but it's just this is the new romasco,
NOTE Confidence: 0.816759164166667
00:39:53.640 --> 00:39:56.628 the allesandro muscular patients in general.
NOTE Confidence: 0.816759164166667
00:39:56.630 --> 00:39:59.310 If you wanna get a complete picture and
NOTE Confidence: 0.816759164166667
00:39:59.310 --> 00:40:02.187 you cut down the study here and to it,
NOTE Confidence: 0.816759164166667
00:40:02.190 --> 00:40:04.998 you may not get this full picture of
NOTE Confidence: 0.816759164166667

00:40:04.998 --> 00:40:07.806 what the patient is doing at night.

NOTE Confidence: 0.816759164166667

00:40:07.810 --> 00:40:10.612 This doesn't this just FY I

NOTE Confidence: 0.816759164166667

00:40:10.612 --> 00:40:12.480 that they sometimes it's.

NOTE Confidence: 0.816759164166667

00:40:12.480 --> 00:40:15.432 It's tricky to know when to put a

NOTE Confidence: 0.816759164166667

00:40:15.432 --> 00:40:18.138 feeding tube and an and if you wait

NOTE Confidence: 0.816759164166667

00:40:18.138 --> 00:40:20.803 too late you may find yourself in

NOTE Confidence: 0.816759164166667

00:40:20.803 --> 00:40:23.013 a position of essentially having

NOTE Confidence: 0.816759164166667

00:40:23.013 --> 00:40:26.000 to do a feeding tube on non

NOTE Confidence: 0.816759164166667

00:40:26.000 --> 00:40:28.100 invasive ventilation and we don't.

NOTE Confidence: 0.816759164166667

00:40:28.100 --> 00:40:31.079 We don't want to do that so if the

NOTE Confidence: 0.816759164166667

00:40:31.079 --> 00:40:32.912 pulmonary function is declining

NOTE Confidence: 0.816759164166667

00:40:32.912 --> 00:40:34.804 it may be appropriate.

NOTE Confidence: 0.816759164166667

00:40:34.810 --> 00:40:37.234 If the patient wants to to pick it.

NOTE Confidence: 0.816759164166667

00:40:37.240 --> 00:40:39.095 If they are going to want it

NOTE Confidence: 0.816759164166667

00:40:39.095 --> 00:40:41.068 anyway to put their feet into

NOTE Confidence: 0.816759164166667

00:40:41.068 --> 00:40:42.548 sooner rather than later,

NOTE Confidence: 0.816759164166667

00:40:42.550 --> 00:40:44.692 that doesn't mean going to an extreme

NOTE Confidence: 0.816759164166667

00:40:44.692 --> 00:40:46.829 of putting them on all the initials.

NOTE Confidence: 0.69091464

00:40:46.830 --> 00:40:48.390 But if they if it's declining,

NOTE Confidence: 0.69091464

00:40:48.390 --> 00:40:51.232 it's very helpful to consider that because

NOTE Confidence: 0.69091464

00:40:51.232 --> 00:40:54.040 it decreases the risk of the procedure,

NOTE Confidence: 0.69091464

00:40:54.040 --> 00:40:56.280 we have transitioned a lot of our

NOTE Confidence: 0.69091464

00:40:56.280 --> 00:40:58.988 patients to do it while you're

NOTE Confidence: 0.69091464

00:40:58.988 --> 00:41:01.228 graphically inserted gastrostomy by

NOTE Confidence: 0.69091464

00:41:01.228 --> 00:41:03.329 interventional radiology because they

NOTE Confidence: 0.69091464

00:41:03.329 --> 00:41:05.447 need less sedation because they don't

NOTE Confidence: 0.69091464

00:41:05.447 --> 00:41:07.740 need a EGD to get it done, they do.

NOTE Confidence: 0.69091464

00:41:07.740 --> 00:41:10.056 They can do it with topical

NOTE Confidence: 0.69091464

00:41:10.056 --> 00:41:11.600 anesthesia and minimal sedation,

NOTE Confidence: 0.69091464

00:41:11.600 --> 00:41:16.195 so this has allowed us to do it in more

NOTE Confidence: 0.69091464

00:41:16.195 --> 00:41:18.717 advanced patients that we will they

NOTE Confidence: 0.69091464

00:41:18.717 --> 00:41:20.508 gastroenterologist and anesthesiologists
NOTE Confidence: 0.69091464

00:41:20.508 --> 00:41:24.090 feel concern about a doing it.
NOTE Confidence: 0.69091464

00:41:24.090 --> 00:41:26.540 Endoscopic Lee.
NOTE Confidence: 0.69091464

00:41:26.540 --> 00:41:28.450 Hey, criteria for non invasive
NOTE Confidence: 0.69091464

00:41:28.450 --> 00:41:31.253 ventilation in a less I mean it
NOTE Confidence: 0.69091464

00:41:31.253 --> 00:41:33.695 improves survival and quality of life.
NOTE Confidence: 0.69091464

00:41:33.700 --> 00:41:36.748 You can see here hypercapnia nocturnal
NOTE Confidence: 0.69091464

00:41:36.748 --> 00:41:40.295 hypoxemia and make a more negative than
NOTE Confidence: 0.69091464

00:41:40.295 --> 00:41:43.960 minus 60 or vital capacity less than 50.
NOTE Confidence: 0.69091464

00:41:43.960 --> 00:41:47.593 Good news is you only need one so
NOTE Confidence: 0.69091464

00:41:47.593 --> 00:41:49.784 that's very helpful is simply to get
NOTE Confidence: 0.69091464

00:41:49.784 --> 00:41:51.617 non invasive ventilation for these
NOTE Confidence: 0.69091464

00:41:51.617 --> 00:41:53.903 patients that for COPD for example.
NOTE Confidence: 0.69091464

00:41:53.910 --> 00:41:57.305 Uhm, this is the only randomized trial
NOTE Confidence: 0.69091464

00:41:57.310 --> 00:42:02.312 done in a lesson in Ivy it was 22 versus 19.
NOTE Confidence: 0.69091464

00:42:02.312 --> 00:42:04.676 They picked some patients with some

NOTE Confidence: 0.69091464

00:42:04.676 --> 00:42:07.548 mild to moderate and mild hypercapnia,

NOTE Confidence: 0.69091464

00:42:07.550 --> 00:42:10.448 is some orthopnea and by vital capacity

NOTE Confidence: 0.69091464

00:42:10.448 --> 00:42:13.841 you can see 40s and 50s and they

NOTE Confidence: 0.69091464

00:42:13.841 --> 00:42:16.455 showed an improved survival in these

NOTE Confidence: 0.69091464

00:42:16.455 --> 00:42:18.765 patients compared to standard care

NOTE Confidence: 0.69091464

00:42:18.765 --> 00:42:22.160 which is the web when they divided their

NOTE Confidence: 0.69091464

00:42:22.160 --> 00:42:24.470 groups between Barber and on Barber.

NOTE Confidence: 0.69091464

00:42:24.470 --> 00:42:27.050 Meaning non non severe bulbar they

NOTE Confidence: 0.69091464

00:42:27.050 --> 00:42:29.323 they saw their benefit specifically

NOTE Confidence: 0.69091464

00:42:29.323 --> 00:42:32.599 in the number number patients or mild

NOTE Confidence: 0.69091464

00:42:32.599 --> 00:42:35.148 to moderate a Barber involvement

NOTE Confidence: 0.69091464

00:42:35.148 --> 00:42:37.698 in the severe bulbar involvement.

NOTE Confidence: 0.69091464

00:42:37.700 --> 00:42:40.208 They didn't see a benefit and this

NOTE Confidence: 0.69091464

00:42:40.208 --> 00:42:42.212 is the only randomized trial that

NOTE Confidence: 0.69091464

00:42:42.212 --> 00:42:43.460 will ever be done.

NOTE Confidence: 0.69091464

00:42:43.460 --> 00:42:46.436 An observation ull see is studies.
NOTE Confidence: 0.69091464

00:42:46.440 --> 00:42:47.468 Retrospective studies.
NOTE Confidence: 0.69091464

00:42:47.468 --> 00:42:50.552 Subsequent to this have shown that
NOTE Confidence: 0.69091464

00:42:50.552 --> 00:42:53.143 patients even with a billboard
NOTE Confidence: 0.69091464

00:42:53.143 --> 00:42:54.628 involvement can benefit.
NOTE Confidence: 0.69091464

00:42:54.630 --> 00:42:57.806 It may be that they have worse tolerance,
NOTE Confidence: 0.69091464

00:42:57.810 --> 00:43:00.528 but that they do still benefit.
NOTE Confidence: 0.69091464

00:43:00.530 --> 00:43:03.470 Does the recommendation from the guidelines.
NOTE Confidence: 0.69091464

00:43:03.470 --> 00:43:07.048 All the guidance is and do not stop
NOTE Confidence: 0.69091464

00:43:07.048 --> 00:43:08.956 recommending and I be just because
NOTE Confidence: 0.69091464

00:43:08.956 --> 00:43:10.660 of bulbar involvement give, give.
NOTE Confidence: 0.69091464

00:43:10.660 --> 00:43:14.530 Give it a try on everyone and then see.
NOTE Confidence: 0.69091464

00:43:14.530 --> 00:43:18.344 This is just what you would expect
NOTE Confidence: 0.69091464

00:43:18.344 --> 00:43:21.355 that T0 is patients without an ID
NOTE Confidence: 0.69091464

00:43:21.355 --> 00:43:24.073 and then they did a PSG on an Ivy
NOTE Confidence: 0.69091464

00:43:24.161 --> 00:43:26.525 and essentially you see the the

NOTE Confidence: 0.69091464

00:43:26.525 --> 00:43:28.806 A all the sleep parameters,

NOTE Confidence: 0.69091464

00:43:28.806 --> 00:43:30.894 improving oxygenation parameter

NOTE Confidence: 0.69091464

00:43:30.894 --> 00:43:34.500 respiratory rate, decreasing, etc.

NOTE Confidence: 0.832127214285714

00:43:37.940 --> 00:43:40.117 And that study from the prior page.

NOTE Confidence: 0.832127214285714

00:43:40.120 --> 00:43:43.858 These patients you save apps for 62 or 65.

NOTE Confidence: 0.832127214285714

00:43:43.858 --> 00:43:45.266 I just like guys.

NOTE Confidence: 0.832127214285714

00:43:45.270 --> 00:43:49.197 Sometimes people ask what protocol is used.

NOTE Confidence: 0.832127214285714

00:43:49.200 --> 00:43:51.456 This is what they use in this one.

NOTE Confidence: 0.832127214285714

00:43:51.460 --> 00:43:56.905 They tend. You tend to use low E pack

NOTE Confidence: 0.832127214285714

00:43:56.905 --> 00:43:59.537 because of a exploratory muscle weakness

NOTE Confidence: 0.832127214285714

00:43:59.537 --> 00:44:02.680 and only use higher E Patton four.

NOTE Confidence: 0.832127214285714

00:44:02.680 --> 00:44:06.416 If you have a clear obstructive sleep apnea,

NOTE Confidence: 0.832127214285714

00:44:06.420 --> 00:44:07.476 the iPod ranges.

NOTE Confidence: 0.832127214285714

00:44:07.476 --> 00:44:09.588 Whatever you need to generate your

NOTE Confidence: 0.832127214285714

00:44:09.588 --> 00:44:11.480 goal title, volume and in this

NOTE Confidence: 0.832127214285714

00:44:11.480 --> 00:44:13.500 study you can see they did that,
NOTE Confidence: 0.832127214285714

00:44:13.500 --> 00:44:15.176 but then it's adjusted.
NOTE Confidence: 0.832127214285714

00:44:15.176 --> 00:44:17.690 The respiratory rate was two less
NOTE Confidence: 0.832127214285714

00:44:17.764 --> 00:44:20.284 than what they found on the PSG
NOTE Confidence: 0.832127214285714

00:44:20.284 --> 00:44:22.469 they title volume range 6 to 10.
NOTE Confidence: 0.832127214285714

00:44:22.470 --> 00:44:23.926 Most people use eight,
NOTE Confidence: 0.832127214285714

00:44:23.926 --> 00:44:26.110 we sometimes use seven to initiate
NOTE Confidence: 0.832127214285714

00:44:26.176 --> 00:44:28.474 patients because we find that it's
NOTE Confidence: 0.832127214285714

00:44:28.474 --> 00:44:30.720 the it's better tolerated than 8,
NOTE Confidence: 0.832127214285714

00:44:30.720 --> 00:44:32.850 specially if they have been breathing
NOTE Confidence: 0.832127214285714

00:44:32.850 --> 00:44:35.378 rapid and shallow league for a while,
NOTE Confidence: 0.832127214285714

00:44:35.380 --> 00:44:38.964 and then we can titrate wait nasal mask.
NOTE Confidence: 0.832127214285714

00:44:38.970 --> 00:44:40.728 And then follow up as needed.
NOTE Confidence: 0.832127214285714

00:44:40.730 --> 00:44:44.734 It's just a graph of the elapse.
NOTE Confidence: 0.832127214285714

00:44:44.740 --> 00:44:46.855 Outpatient titration we see patients
NOTE Confidence: 0.832127214285714

00:44:46.855 --> 00:44:49.430 will download the data every visit.

NOTE Confidence: 0.832127214285714

00:44:49.430 --> 00:44:52.895 We check pulse oximetry and entitle or

NOTE Confidence: 0.832127214285714

00:44:52.895 --> 00:44:57.200 ABG with our transition more to entitled.

NOTE Confidence: 0.832127214285714

00:44:57.200 --> 00:44:58.990 Because of the convenience and

NOTE Confidence: 0.832127214285714

00:44:58.990 --> 00:45:00.422 less patient discomfort and

NOTE Confidence: 0.832127214285714

00:45:00.422 --> 00:45:02.156 depending on what the patient says.

NOTE Confidence: 0.832127214285714

00:45:02.160 --> 00:45:04.288 Hey, how are you doing? How do you feel?

NOTE Confidence: 0.832127214285714

00:45:04.288 --> 00:45:05.398 Do you feel well supported?

NOTE Confidence: 0.832127214285714

00:45:05.400 --> 00:45:06.438 Do you want a bigger breath?

NOTE Confidence: 0.832127214285714

00:45:06.440 --> 00:45:08.896 You want a smaller bread or larger breath

NOTE Confidence: 0.832127214285714

00:45:08.896 --> 00:45:11.579 and then we'll make adjustments based on

NOTE Confidence: 0.832127214285714

00:45:11.579 --> 00:45:14.010 comfort and feedback from the patient.

NOTE Confidence: 0.832127214285714

00:45:14.010 --> 00:45:16.690 And they it P CO2 and we can

NOTE Confidence: 0.832127214285714

00:45:16.690 --> 00:45:18.430 increase the backup rate,

NOTE Confidence: 0.832127214285714

00:45:18.430 --> 00:45:19.720 the title volume,

NOTE Confidence: 0.832127214285714

00:45:19.720 --> 00:45:21.870 the pressure to support increased

NOTE Confidence: 0.832127214285714

00:45:21.870 --> 00:45:23.501 daytime used, change the mask.
NOTE Confidence: 0.832127214285714

00:45:23.501 --> 00:45:25.043 And as the last we saw,
NOTE Confidence: 0.832127214285714

00:45:25.050 --> 00:45:28.110 bring them back into the lab.
NOTE Confidence: 0.832127214285714

00:45:28.110 --> 00:45:30.490 Masks are very critical in this patient
NOTE Confidence: 0.832127214285714

00:45:30.490 --> 00:45:32.336 population is very challenging because
NOTE Confidence: 0.832127214285714

00:45:32.336 --> 00:45:35.384 they need sometimes help putting the mask on.
NOTE Confidence: 0.832127214285714

00:45:35.390 --> 00:45:36.743 They have drooling.
NOTE Confidence: 0.832127214285714

00:45:36.743 --> 00:45:38.547 Then they have drooling,
NOTE Confidence: 0.832127214285714

00:45:38.550 --> 00:45:39.990 but then their mouth is open,
NOTE Confidence: 0.832127214285714

00:45:39.990 --> 00:45:41.928 so if you do nasal everything,
NOTE Confidence: 0.832127214285714

00:45:41.930 --> 00:45:44.870 scapes and even the chinstrap doesn't help.
NOTE Confidence: 0.832127214285714

00:45:44.870 --> 00:45:46.769 But then, if you put a full face mask,
NOTE Confidence: 0.832127214285714

00:45:46.770 --> 00:45:48.807 then they they have the saliva accumulated,
NOTE Confidence: 0.832127214285714

00:45:48.810 --> 00:45:51.168 so it's very challenging they mentioned
NOTE Confidence: 0.832127214285714

00:45:51.168 --> 00:45:53.110 can be challenging weight loss,
NOTE Confidence: 0.832127214285714

00:45:53.110 --> 00:45:55.570 etc.

NOTE Confidence: 0.832127214285714

00:45:55.570 --> 00:46:00.618 Uhm, this is a a an example this

NOTE Confidence: 0.832127214285714

00:46:00.620 --> 00:46:02.468 case small case series.

NOTE Confidence: 0.832127214285714

00:46:02.468 --> 00:46:05.783 Two patients with masks and dumb and

NOTE Confidence: 0.832127214285714

00:46:05.783 --> 00:46:08.961 they full face versus up pillows and

NOTE Confidence: 0.832127214285714

00:46:08.961 --> 00:46:12.061 essentially in one patient it did not

NOTE Confidence: 0.832127214285714

00:46:12.061 --> 00:46:14.898 make a difference in related to the

NOTE Confidence: 0.832127214285714

00:46:14.898 --> 00:46:16.718 airway and another another patient

NOTE Confidence: 0.832127214285714

00:46:16.718 --> 00:46:20.205 it it did so it's I think it's that's

NOTE Confidence: 0.832127214285714

00:46:20.205 --> 00:46:22.281 something that already has been

NOTE Confidence: 0.832127214285714

00:46:22.281 --> 00:46:25.035 studied significantly in always say but.

NOTE Confidence: 0.832127214285714

00:46:25.040 --> 00:46:30.278 I do want to point that out that the.

NOTE Confidence: 0.832127214285714

00:46:30.280 --> 00:46:31.732 They they they,

NOTE Confidence: 0.832127214285714

00:46:31.732 --> 00:46:35.120 it's important if possible to do a

NOTE Confidence: 0.832127214285714

00:46:35.218 --> 00:46:38.794 nasal a nasal mask over an oral mask.

NOTE Confidence: 0.832127214285714

00:46:38.800 --> 00:46:40.776 But of course or a mask if not.

NOTE Confidence: 0.832127214285714

00:46:40.780 --> 00:46:42.850 And actually I'm going to stop
NOTE Confidence: 0.832127214285714

00:46:42.850 --> 00:46:45.140 sharing for one second and I'm gonna
NOTE Confidence: 0.832127214285714

00:46:45.140 --> 00:46:49.260 show you a video of one minute of a
NOTE Confidence: 0.832127214285714

00:46:49.260 --> 00:46:52.773 of this paper and sometimes seeing
NOTE Confidence: 0.832127214285714

00:46:52.773 --> 00:46:56.008 things is is helpful, so here it is.
NOTE Confidence: 0.39808093

00:47:04.630 --> 00:47:05.788 In this video,
NOTE Confidence: 0.39808093

00:47:05.790 --> 00:47:08.762 two patients diagnosed with Amy Tropic,
NOTE Confidence: 0.39808093

00:47:08.762 --> 00:47:11.875 Lateral sclerosis can be seen there
NOTE Confidence: 0.39808093

00:47:11.875 --> 00:47:14.390 using my invasive ventilation while
NOTE Confidence: 0.39808093

00:47:14.390 --> 00:47:18.400 rate monitored through video for us.
NOTE Confidence: 0.39808093

00:47:18.400 --> 00:47:20.950 Nearly ventilated with two different mask
NOTE Confidence: 0.39808093

00:47:20.950 --> 00:47:24.990 interfaces for a nasal and intranasal masks.
NOTE Confidence: 0.39808093

00:47:24.990 --> 00:47:27.082 Since that one is unmasked
NOTE Confidence: 0.39808093

00:47:27.082 --> 00:47:29.130 prices on the mandible,
NOTE Confidence: 0.39808093

00:47:29.130 --> 00:47:31.360 causing retraction and diminishing
NOTE Confidence: 0.39808093

00:47:31.360 --> 00:47:33.710 the size of the upper airway,

NOTE Confidence: 0.39808093

00:47:33.710 --> 00:47:37.480 disparities can be seen in size of the upper

NOTE Confidence: 0.39808093

00:47:37.480 --> 00:47:39.968 airway and in the positions of the mandible,

NOTE Confidence: 0.39808093

00:47:39.970 --> 00:47:42.604 tongue, soft palate and highly drunk.

NOTE Confidence: 0.39808093

00:47:42.604 --> 00:47:44.956 Future studies month.

NOTE Confidence: 0.39808093

00:47:44.956 --> 00:47:50.276 OK, so let me share back my presentation.

NOTE Confidence: 0.39808093

00:47:50.280 --> 00:47:53.045 So just something to keep in mind

NOTE Confidence: 0.39808093

00:47:53.045 --> 00:47:55.648 come and we did a case study of a

NOTE Confidence: 0.39808093

00:47:55.648 --> 00:47:58.507 LS in we did our first A we use

NOTE Confidence: 0.39808093

00:47:58.507 --> 00:48:00.714 a box instead of vibes because

NOTE Confidence: 0.39808093

00:48:00.714 --> 00:48:03.444 that's what we have in our lab.

NOTE Confidence: 0.39808093

00:48:03.450 --> 00:48:05.550 We did our first case study

NOTE Confidence: 0.39808093

00:48:05.550 --> 00:48:06.600 in first titration.

NOTE Confidence: 0.39808093

00:48:06.600 --> 00:48:09.840 This patient a lesson in May of 2012.

NOTE Confidence: 0.39808093

00:48:09.840 --> 00:48:11.908 Special decline pretty quickly

NOTE Confidence: 0.39808093

00:48:11.908 --> 00:48:14.964 over over several months from 79%

NOTE Confidence: 0.39808093

00:48:14.964 --> 00:48:18.676 to 38% and we did a sleep study.
NOTE Confidence: 0.39808093

00:48:18.680 --> 00:48:20.828 Patient did not have sleep apnea.
NOTE Confidence: 0.39808093

00:48:20.830 --> 00:48:24.344 What she had was a sleep hypoventilation.
NOTE Confidence: 0.39808093

00:48:24.350 --> 00:48:28.389 We did a datacard analysis over 15
NOTE Confidence: 0.39808093

00:48:28.389 --> 00:48:31.644 weeks and the one thing to show is
NOTE Confidence: 0.39808093

00:48:31.644 --> 00:48:33.875 that this device was manufacture
NOTE Confidence: 0.39808093

00:48:33.875 --> 00:48:35.859 about 10 years ago.
NOTE Confidence: 0.39808093

00:48:35.860 --> 00:48:38.135 So it's the algorithms have
NOTE Confidence: 0.39808093

00:48:38.135 --> 00:48:39.045 improved significantly.
NOTE Confidence: 0.39808093

00:48:39.050 --> 00:48:42.050 But I do want to point out that it every
NOTE Confidence: 0.39808093

00:48:42.128 --> 00:48:44.824 week the DATACARD showed an 8 hi hi.
NOTE Confidence: 0.39808093

00:48:44.830 --> 00:48:47.134 Whereas on the PSG and they
NOTE Confidence: 0.39808093

00:48:47.134 --> 00:48:48.286 titration it didn't.
NOTE Confidence: 0.39808093

00:48:48.290 --> 00:48:50.432 So they even this is not
NOTE Confidence: 0.39808093

00:48:50.432 --> 00:48:51.503 necessarily the case.
NOTE Confidence: 0.39808093

00:48:51.510 --> 00:48:52.930 Now, because as mentioned,

NOTE Confidence: 0.39808093

00:48:52.930 --> 00:48:54.350 the machines are improved,

NOTE Confidence: 0.39808093

00:48:54.350 --> 00:48:57.814 but to keep in mind that sometimes the

NOTE Confidence: 0.39808093

00:48:57.814 --> 00:48:59.868 hyperventilation events may be mistaken,

NOTE Confidence: 0.39808093

00:48:59.870 --> 00:49:03.134 and to be if something doesn't make sense,

NOTE Confidence: 0.39808093

00:49:03.140 --> 00:49:04.485 sometimes it's better to bring

NOTE Confidence: 0.39808093

00:49:04.485 --> 00:49:05.830 the patient to the lab.

NOTE Confidence: 0.39808093

00:49:05.830 --> 00:49:08.210 This patient had progressive in

NOTE Confidence: 0.39808093

00:49:08.210 --> 00:49:10.590 a fluctuating but increased use

NOTE Confidence: 0.39808093

00:49:10.669 --> 00:49:12.709 of the ventilator everyday.

NOTE Confidence: 0.39808093

00:49:12.710 --> 00:49:14.590 You know, more banks,

NOTE Confidence: 0.39808093

00:49:14.590 --> 00:49:17.410 ventilators with a very familiar with.

NOTE Confidence: 0.39808093

00:49:17.410 --> 00:49:20.065 We sometimes tend to use

NOTE Confidence: 0.39808093

00:49:20.065 --> 00:49:21.658 regular bilevel with.

NOTE Confidence: 0.39808093

00:49:21.660 --> 00:49:25.107 A box or backup rate and then usually we

NOTE Confidence: 0.39808093

00:49:25.107 --> 00:49:28.455 use a bipap avaps or it can be there.

NOTE Confidence: 0.39808093

00:49:28.460 --> 00:49:32.252 I bops and then when the patient progresses

NOTE Confidence: 0.39808093

00:49:32.252 --> 00:49:35.507 from night time to daytime use we we

NOTE Confidence: 0.39808093

00:49:35.507 --> 00:49:38.830 switch to a more advanced ventilator.

NOTE Confidence: 0.39808093

00:49:38.830 --> 00:49:41.110 We need to have discussions with

NOTE Confidence: 0.39808093

00:49:41.110 --> 00:49:43.260 the patients about end of life.

NOTE Confidence: 0.39808093

00:49:43.260 --> 00:49:46.419 This is a a group of 24 patients and

NOTE Confidence: 0.39808093

00:49:46.419 --> 00:49:49.179 only four were extubated and with a

NOTE Confidence: 0.39808093

00:49:49.179 --> 00:49:52.609 LS so it's not that it's impossible.

NOTE Confidence: 0.39808093

00:49:52.610 --> 00:49:53.822 You get extra later.

NOTE Confidence: 0.39808093

00:49:53.822 --> 00:49:55.910 We have said expectations that it's not.

NOTE Confidence: 0.39808093

00:49:55.910 --> 00:49:57.710 Don't expect to be excavated.

NOTE Confidence: 0.39808093

00:49:57.710 --> 00:50:01.217 More likely than not, and this is

NOTE Confidence: 0.39808093

00:50:01.217 --> 00:50:03.910 a invasive mechanical ventilation.

NOTE Confidence: 0.39808093

00:50:03.910 --> 00:50:04.500 Essentially,

NOTE Confidence: 0.39808093

00:50:04.500 --> 00:50:08.630 the point is like the last bullet,

NOTE Confidence: 0.39808093

00:50:08.630 --> 00:50:10.298 .8 patients were placed

NOTE Confidence: 0.39808093
00:50:10.298 --> 00:50:11.549 without their consent.
NOTE Confidence: 0.39808093
00:50:11.550 --> 00:50:14.230 508 would not want to undergo it again,
NOTE Confidence: 0.39808093
00:50:14.230 --> 00:50:15.588 so there are a lot of patients
NOTE Confidence: 0.39808093
00:50:15.588 --> 00:50:17.030 that are put on the ventilator.
NOTE Confidence: 0.39808093
00:50:17.030 --> 00:50:18.790 Essentially, if you wanted,
NOTE Confidence: 0.39808093
00:50:18.790 --> 00:50:22.490 you are happy with it most of the time,
NOTE Confidence: 0.39808093
00:50:22.490 --> 00:50:22.855 88%.
NOTE Confidence: 0.39808093
00:50:22.855 --> 00:50:25.045 But if you did not want
NOTE Confidence: 0.39808093
00:50:25.045 --> 00:50:27.100 it and you're put on it,
NOTE Confidence: 0.39808093
00:50:27.100 --> 00:50:29.599 I I large proportion are not happy.
NOTE Confidence: 0.39808093
00:50:29.600 --> 00:50:31.488 Although there are three out of eight were,
NOTE Confidence: 0.39808093
00:50:31.490 --> 00:50:34.418 so it's important to have this
NOTE Confidence: 0.39808093
00:50:34.418 --> 00:50:36.370 discussion that pragmatic pacing
NOTE Confidence: 0.794676224736842
00:50:36.457 --> 00:50:38.912 to a randomized trial showed
NOTE Confidence: 0.794676224736842
00:50:38.912 --> 00:50:40.876 worsening mortality with it.
NOTE Confidence: 0.794676224736842

00:50:40.880 --> 00:50:43.760 Uh, I think very few people
NOTE Confidence: 0.794676224736842

00:50:43.760 --> 00:50:45.680 are doing this anymore,
NOTE Confidence: 0.794676224736842

00:50:45.680 --> 00:50:49.376 and so to finalize last couple of slides,
NOTE Confidence: 0.794676224736842

00:50:49.380 --> 00:50:52.100 and we want to maximize quality of care,
NOTE Confidence: 0.794676224736842

00:50:52.100 --> 00:50:53.447 discussed options of.
NOTE Confidence: 0.794676224736842

00:50:53.447 --> 00:50:57.355 End of life and a peg tube, etc.
NOTE Confidence: 0.794676224736842

00:50:57.355 --> 00:50:59.650 Early advanced directives.
NOTE Confidence: 0.794676224736842

00:50:59.650 --> 00:51:04.240 Early referral to Hospice as needed.
NOTE Confidence: 0.794676224736842

00:51:04.240 --> 00:51:05.839 Very prevention, vaccinations.
NOTE Confidence: 0.794676224736842

00:51:05.839 --> 00:51:09.037 I tried to get everyone to
NOTE Confidence: 0.794676224736842

00:51:09.037 --> 00:51:11.680 get vaccinated dental care.
NOTE Confidence: 0.794676224736842

00:51:11.680 --> 00:51:14.067 Very important it we had them when
NOTE Confidence: 0.794676224736842

00:51:14.067 --> 00:51:16.040 they come initially to the clinic.
NOTE Confidence: 0.794676224736842

00:51:16.040 --> 00:51:17.870 Hey, if you haven't been to
NOTE Confidence: 0.794676224736842

00:51:17.870 --> 00:51:19.090 the dentist goal decreases
NOTE Confidence: 0.794676224736842

00:51:19.152 --> 00:51:20.848 pathogenicity of the bacteria.

NOTE Confidence: 0.794676224736842
00:51:20.850 --> 00:51:22.890 Also still be terrible to have
NOTE Confidence: 0.794676224736842
00:51:22.890 --> 00:51:24.869 someone 24 hours on a Bipap.
NOTE Confidence: 0.794676224736842
00:51:24.870 --> 00:51:26.907 And then having to get a carries
NOTE Confidence: 0.794676224736842
00:51:26.907 --> 00:51:29.120 a with the with the with the
NOTE Confidence: 0.794676224736842
00:51:29.120 --> 00:51:31.028 mask on which we've had that.
NOTE Confidence: 0.794676224736842
00:51:31.030 --> 00:51:33.340 So we're trying to prevent that important
NOTE Confidence: 0.794676224736842
00:51:33.340 --> 00:51:35.535 to secure our primary care provider
NOTE Confidence: 0.794676224736842
00:51:35.535 --> 00:51:38.500 'cause this clinic is not available 24/7.
NOTE Confidence: 0.794676224736842
00:51:38.500 --> 00:51:41.900 Action plan on respiratory infections.
NOTE Confidence: 0.794676224736842
00:51:41.900 --> 00:51:45.483 Introduction to the Heimlich maneuver we
NOTE Confidence: 0.794676224736842
00:51:45.483 --> 00:51:47.814 have to monitor the caregivers and burnout.
NOTE Confidence: 0.794676224736842
00:51:47.820 --> 00:51:49.328 Social work is very
NOTE Confidence: 0.794676224736842
00:51:49.328 --> 00:51:50.836 important for these patients.
NOTE Confidence: 0.794676224736842
00:51:50.840 --> 00:51:53.990 We have our Maryland ALS clinic.
NOTE Confidence: 0.794676224736842
00:51:53.990 --> 00:51:55.586 They want me to say now.
NOTE Confidence: 0.794676224736842

00:51:55.590 --> 00:51:57.366 A center of excellence.
NOTE Confidence: 0.794676224736842

00:51:57.366 --> 00:52:00.589 So, uh, this is a center of excellence.
NOTE Confidence: 0.794676224736842

00:52:00.590 --> 00:52:02.634 We have multiple specialties,
NOTE Confidence: 0.794676224736842

00:52:02.634 --> 00:52:04.167 specialist at CD,
NOTE Confidence: 0.794676224736842

00:52:04.170 --> 00:52:07.187 patient in the clinic that wants bolded,
NOTE Confidence: 0.794676224736842

00:52:07.190 --> 00:52:09.805 and we have close relationship
NOTE Confidence: 0.794676224736842

00:52:09.805 --> 00:52:11.897 with their other specialists.
NOTE Confidence: 0.794676224736842

00:52:11.900 --> 00:52:14.326 And this is our our, our group.
NOTE Confidence: 0.794676224736842

00:52:14.326 --> 00:52:16.750 And this is one day that we were
NOTE Confidence: 0.794676224736842

00:52:16.829 --> 00:52:19.160 in clinic and and took a picture.
NOTE Confidence: 0.794676224736842

00:52:19.160 --> 00:52:20.212 Thank you very much.
NOTE Confidence: 0.794676224736842

00:52:20.212 --> 00:52:21.264 Let me stop sharing.
NOTE Confidence: 0.9688519975

00:52:30.710 --> 00:52:31.982 Thank you very much.
NOTE Confidence: 0.9688519975

00:52:31.982 --> 00:52:33.541 That was absolutely outstanding, really.
NOTE Confidence: 0.9688519975

00:52:33.541 --> 00:52:34.946 An excellent overview of of
NOTE Confidence: 0.9688519975

00:52:34.946 --> 00:52:36.590 how to manage these patients,

NOTE Confidence: 0.9688519975

00:52:36.590 --> 00:52:38.880 so I appreciate that for

NOTE Confidence: 0.9688519975

00:52:38.880 --> 00:52:40.254 everyone who's participating,

NOTE Confidence: 0.9688519975

00:52:40.260 --> 00:52:42.100 please feel free to come put a question

NOTE Confidence: 0.9688519975

00:52:42.100 --> 00:52:43.817 in the chat or unmute yourself.

NOTE Confidence: 0.9688519975

00:52:43.820 --> 00:52:47.306 I'd be happy to relay those questions

NOTE Confidence: 0.9688519975

00:52:47.310 --> 00:52:50.030 so I I'm very interested in your at

NOTE Confidence: 0.9688519975

00:52:50.030 --> 00:52:52.240 the beginning of your presentation.

NOTE Confidence: 0.9688519975

00:52:52.240 --> 00:52:53.460 You mentioned that older study

NOTE Confidence: 0.9688519975

00:52:53.460 --> 00:52:54.680 that talked about the frequency,

NOTE Confidence: 0.9688519975

00:52:54.680 --> 00:52:55.568 title, volume ratio,

NOTE Confidence: 0.9688519975

00:52:55.568 --> 00:52:58.080 and I have the same impression as you do,

NOTE Confidence: 0.9688519975

00:52:58.080 --> 00:53:00.858 that that's actually quite helpful that.

NOTE Confidence: 0.9688519975

00:53:00.860 --> 00:53:01.884 To look at that,

NOTE Confidence: 0.9688519975

00:53:01.884 --> 00:53:03.420 when we see the patients initially

NOTE Confidence: 0.9688519975

00:53:03.478 --> 00:53:05.340 and then later on on their downloads,

NOTE Confidence: 0.9688519975

00:53:05.340 --> 00:53:06.297 you know title,
NOTE Confidence: 0.9688519975

00:53:06.297 --> 00:53:08.530 volume and frequency are both are both
NOTE Confidence: 0.9688519975

00:53:08.595 --> 00:53:11.136 available and we can actually measure that.
NOTE Confidence: 0.9688519975

00:53:11.140 --> 00:53:13.174 And Lisa Wolf had a publication
NOTE Confidence: 0.9688519975

00:53:13.174 --> 00:53:14.916 looking at Vaps versus you
NOTE Confidence: 0.9688519975

00:53:14.916 --> 00:53:16.486 may be familiar with this,
NOTE Confidence: 0.9688519975

00:53:16.490 --> 00:53:18.177 but I'm sure you are vaps versus
NOTE Confidence: 0.9688519975

00:53:18.177 --> 00:53:19.600 bilevel a number of years ago,
NOTE Confidence: 0.9688519975

00:53:19.600 --> 00:53:21.896 published in Annals of ATS looking weather,
NOTE Confidence: 0.9688519975

00:53:21.900 --> 00:53:22.514 frequency title,
NOTE Confidence: 0.9688519975

00:53:22.514 --> 00:53:24.049 volume ratio was helpful in
NOTE Confidence: 0.9688519975

00:53:24.049 --> 00:53:25.800 deciding what mode might be better,
NOTE Confidence: 0.9688519975

00:53:25.800 --> 00:53:27.360 and it was a retrospective review,
NOTE Confidence: 0.9688519975

00:53:27.360 --> 00:53:29.520 but that sort of shed some light on that.
NOTE Confidence: 0.9688519975

00:53:29.520 --> 00:53:30.918 Is that something you're using to?
NOTE Confidence: 0.9688519975

00:53:30.920 --> 00:53:32.366 Follow patients you know when you're

NOTE Confidence: 0.9688519975

00:53:32.366 --> 00:53:33.761 looking at these downloads and deciding

NOTE Confidence: 0.9688519975

00:53:33.761 --> 00:53:35.126 if patients are doing well is that

NOTE Confidence: 0.9688519975

00:53:35.126 --> 00:53:36.546 one of the things that you look at.

NOTE Confidence: 0.740119126086957

00:53:37.190 --> 00:53:40.088 Yes, uh, my listen, I are in that same

NOTE Confidence: 0.740119126086957

00:53:40.088 --> 00:53:42.326 meals committee so we were doing that

NOTE Confidence: 0.740119126086957

00:53:42.326 --> 00:53:45.368 so and I I read her paper. She's very.

NOTE Confidence: 0.740119126086957

00:53:45.368 --> 00:53:47.920 She's like I probably one of the people

NOTE Confidence: 0.740119126086957

00:53:47.986 --> 00:53:50.240 that knows the most about the topic.

NOTE Confidence: 0.740119126086957

00:53:50.240 --> 00:53:52.918 Yes, I I. I look at it if I see a

NOTE Confidence: 0.740119126086957

00:53:52.918 --> 00:53:55.012 high respiratory rate and for example

NOTE Confidence: 0.740119126086957

00:53:55.012 --> 00:53:58.100 I have a gold title volume of seven,

NOTE Confidence: 0.740119126086957

00:53:58.100 --> 00:53:59.948 I will increase it to wait.

NOTE Confidence: 0.740119126086957

00:53:59.950 --> 00:54:02.092 And I also or maybe increase

NOTE Confidence: 0.740119126086957

00:54:02.092 --> 00:54:04.569 it even at a touch more.

NOTE Confidence: 0.740119126086957

00:54:04.570 --> 00:54:07.356 And I also look at the triggering.

NOTE Confidence: 0.740119126086957

00:54:07.360 --> 00:54:09.600 So I don't want this when these patients.

NOTE Confidence: 0.740119126086957

00:54:09.600 --> 00:54:12.400 If you someone has oh HS or whatever,

NOTE Confidence: 0.740119126086957

00:54:12.400 --> 00:54:13.560 it doesn't matter if they

NOTE Confidence: 0.740119126086957

00:54:13.560 --> 00:54:14.488 trigger on their own,

NOTE Confidence: 0.740119126086957

00:54:14.490 --> 00:54:16.278 they may be even more comfortable,

NOTE Confidence: 0.740119126086957

00:54:16.280 --> 00:54:18.849 but in this LS patients mouth to

NOTE Confidence: 0.740119126086957

00:54:18.849 --> 00:54:21.180 moderate is not as significant.

NOTE Confidence: 0.740119126086957

00:54:21.180 --> 00:54:22.956 But when they're advanced,

NOTE Confidence: 0.740119126086957

00:54:22.956 --> 00:54:25.620 having them have to trigger every

NOTE Confidence: 0.740119126086957

00:54:25.703 --> 00:54:28.145 single breath as a work workload.

NOTE Confidence: 0.740119126086957

00:54:28.150 --> 00:54:30.152 So I look at the triggering and

NOTE Confidence: 0.740119126086957

00:54:30.152 --> 00:54:32.740 if I see that they're triggering

NOTE Confidence: 0.740119126086957

00:54:32.740 --> 00:54:34.188 7080% of their breasts,

NOTE Confidence: 0.740119126086957

00:54:34.188 --> 00:54:35.998 I will increase the respiratory

NOTE Confidence: 0.740119126086957

00:54:35.998 --> 00:54:37.687 rate to try to lower that.

NOTE Confidence: 0.740119126086957

00:54:37.690 --> 00:54:39.405 You cannot make it 0 because then

NOTE Confidence: 0.740119126086957
00:54:39.405 --> 00:54:41.287 you run the risk of the patient.
NOTE Confidence: 0.740119126086957
00:54:41.290 --> 00:54:42.746 Then the patient calls you that they're
NOTE Confidence: 0.740119126086957
00:54:42.746 --> 00:54:44.310 getting a breath when they don't want it,
NOTE Confidence: 0.740119126086957
00:54:44.310 --> 00:54:46.627 but I try to know where that,
NOTE Confidence: 0.740119126086957
00:54:46.630 --> 00:54:49.682 ideally to 20% a roughly so that
NOTE Confidence: 0.740119126086957
00:54:49.682 --> 00:54:52.390 they trigger less and make a
NOTE Confidence: 0.740119126086957
00:54:52.390 --> 00:54:55.006 little bit less work of breathing.
NOTE Confidence: 0.740119126086957
00:54:55.010 --> 00:54:55.829 So that's another.
NOTE Confidence: 0.740119126086957
00:54:55.829 --> 00:54:58.371 It's just like a it's so much stuff II
NOTE Confidence: 0.740119126086957
00:54:58.371 --> 00:55:00.619 that that that that we could talk about,
NOTE Confidence: 0.740119126086957
00:55:00.620 --> 00:55:01.098 we could.
NOTE Confidence: 0.740119126086957
00:55:01.098 --> 00:55:03.380 We could sit for an hour and compare notes.
NOTE Confidence: 0.559161132
00:55:04.780 --> 00:55:06.148 I agree I agree.
NOTE Confidence: 0.559161132
00:55:06.148 --> 00:55:07.132 UM, other questions.
NOTE Confidence: 0.559161132
00:55:07.132 --> 00:55:09.700 I'm not seeing anything in the chat yet.
NOTE Confidence: 0.559161132

00:55:09.700 --> 00:55:10.620 One thing you know,
NOTE Confidence: 0.559161132

00:55:10.620 --> 00:55:11.540 you mentioned the comment.
NOTE Confidence: 0.559161132

00:55:11.540 --> 00:55:12.686 The other thing that struck me,
NOTE Confidence: 0.559161132

00:55:12.690 --> 00:55:15.578 you know it is compared to other disorders.
NOTE Confidence: 0.559161132

00:55:15.580 --> 00:55:17.364 You know, the the current laundry list of
NOTE Confidence: 0.559161132

00:55:17.364 --> 00:55:19.429 hoops to jump through to get these patients.
NOTE Confidence: 0.559161132

00:55:19.430 --> 00:55:21.794 Or you know, a respiratory assist
NOTE Confidence: 0.559161132

00:55:21.794 --> 00:55:23.950 device is certainly easier than
NOTE Confidence: 0.559161132

00:55:23.950 --> 00:55:25.998 COPD or hypoventilation syndromes.
NOTE Confidence: 0.559161132

00:55:26.000 --> 00:55:28.025 They only have to fit one of the four,
NOTE Confidence: 0.559161132

00:55:28.030 --> 00:55:29.870 but at the same time you bring up
NOTE Confidence: 0.559161132

00:55:29.870 --> 00:55:31.562 the point that these patients may
NOTE Confidence: 0.559161132

00:55:31.562 --> 00:55:33.326 look pretty good during the day
NOTE Confidence: 0.559161132

00:55:33.384 --> 00:55:34.988 and only have hypoventilation.
NOTE Confidence: 0.559161132

00:55:34.990 --> 00:55:36.511 Based on nocturnal,
NOTE Confidence: 0.559161132

00:55:36.511 --> 00:55:39.046 transcutaneous CO2 and not oximetry.

NOTE Confidence: 0.559161132

00:55:39.050 --> 00:55:40.535 And of course the technical

NOTE Confidence: 0.559161132

00:55:40.535 --> 00:55:41.723 expert panel is looking.

NOTE Confidence: 0.559161132

00:55:41.730 --> 00:55:45.050 It has added that now as a possible

NOTE Confidence: 0.559161132

00:55:45.050 --> 00:55:47.948 addition to the to the qualifying

NOTE Confidence: 0.559161132

00:55:47.950 --> 00:55:50.295 qualifying criteria to be able to put

NOTE Confidence: 0.559161132

00:55:50.295 --> 00:55:52.428 patients on you initiate mechanical

NOTE Confidence: 0.559161132

00:55:52.428 --> 00:55:54.540 ventilation in these patients,

NOTE Confidence: 0.559161132

00:55:54.540 --> 00:55:55.849 whether that will go through or not.

NOTE Confidence: 0.559161132

00:55:55.850 --> 00:55:56.711 I don't know,

NOTE Confidence: 0.559161132

00:55:56.711 --> 00:55:58.433 but what are your thoughts there?

NOTE Confidence: 0.707010368888889

00:55:59.110 --> 00:55:59.980 Oh, absolutely.

NOTE Confidence: 0.707010368888889

00:55:59.980 --> 00:56:03.025 I'm Karen Johnson that I see here.

NOTE Confidence: 0.707010368888889

00:56:03.030 --> 00:56:05.950 I know she's one of one of those panels I.

NOTE Confidence: 0.707010368888889

00:56:05.950 --> 00:56:08.766 And I if all these rules were changed,

NOTE Confidence: 0.707010368888889

00:56:08.770 --> 00:56:10.870 it would like it would make everyone's

NOTE Confidence: 0.707010368888889

00:56:10.870 --> 00:56:13.810 life easier and patient care in improve.

NOTE Confidence: 0.707010368888889

00:56:13.810 --> 00:56:15.610 They really do not make sense.

NOTE Confidence: 0.707010368888889

00:56:15.610 --> 00:56:17.620 I sometimes their consoles by

NOTE Confidence: 0.707010368888889

00:56:17.620 --> 00:56:19.630 pulmonologist just because they don't

NOTE Confidence: 0.707010368888889

00:56:19.690 --> 00:56:23.080 know the rules and and you do it.

NOTE Confidence: 0.707010368888889

00:56:23.080 --> 00:56:25.005 But I even I sometimes have to

NOTE Confidence: 0.707010368888889

00:56:25.005 --> 00:56:27.405 look them up after after all these

NOTE Confidence: 0.707010368888889

00:56:27.405 --> 00:56:29.290 years for a particular patient.

NOTE Confidence: 0.707010368888889

00:56:29.290 --> 00:56:32.422 So it's looks so your completed

NOTE Confidence: 0.707010368888889

00:56:32.422 --> 00:56:33.988 by Doctor Hilbert.

NOTE Confidence: 0.707010368888889

00:56:33.990 --> 00:56:36.279 I look so forward to these changes.

NOTE Confidence: 0.707010368888889

00:56:36.280 --> 00:56:38.320 I know they're good people involved,

NOTE Confidence: 0.707010368888889

00:56:38.320 --> 00:56:40.978 and so yes before I'm done.

NOTE Confidence: 0.707010368888889

00:56:40.980 --> 00:56:43.761 I do wanna do a little shout out to

NOTE Confidence: 0.707010368888889

00:56:43.761 --> 00:56:46.304 Shruti Katapa that rotated with us in

NOTE Confidence: 0.707010368888889

00:56:46.304 --> 00:56:49.328 Sleep Medicine I I know her well and I'm

NOTE Confidence: 0.707010368888889
00:56:49.328 --> 00:56:52.151 so glad that she is on faculty there.
NOTE Confidence: 0.707010368888889
00:56:52.151 --> 00:56:54.773 She was a absolute delight and
NOTE Confidence: 0.707010368888889
00:56:54.773 --> 00:56:57.587 pleasure to have on rotation for sleep.
NOTE Confidence: 0.861843602
00:57:00.420 --> 00:57:03.550 We agree, we agree completely.
NOTE Confidence: 0.861843602
00:57:03.550 --> 00:57:04.804 Alright, other questions.
NOTE Confidence: 0.861843602
00:57:04.804 --> 00:57:06.476 Anybody feel like unmuting
NOTE Confidence: 0.861843602
00:57:06.476 --> 00:57:08.393 themselves and ask yourself or
NOTE Confidence: 0.861843602
00:57:08.393 --> 00:57:10.500 drop something in the chat for us?
NOTE Confidence: 0.909147701818182
00:57:12.630 --> 00:57:14.298 I know we have some pediatric
NOTE Confidence: 0.909147701818182
00:57:14.298 --> 00:57:15.700 people on the panel too.
NOTE Confidence: 0.909147701818182
00:57:15.700 --> 00:57:17.604 I don't know if they have questions
NOTE Confidence: 0.909147701818182
00:57:17.604 --> 00:57:19.228 about transitions of care we were
NOTE Confidence: 0.909147701818182
00:57:19.228 --> 00:57:20.992 talking about that a little bit before.
NOTE Confidence: 0.909147701818182
00:57:21.000 --> 00:57:22.314 We would have time for maybe
NOTE Confidence: 0.909147701818182
00:57:22.314 --> 00:57:24.009 one one or two more questions.
NOTE Confidence: 0.881424888888889

00:57:32.520 --> 00:57:34.518 So so yeah, well we were talking about that.

NOTE Confidence: 0.88142488888889

00:57:34.520 --> 00:57:37.864 We do is come when a pediatric pediatric

NOTE Confidence: 0.88142488888889

00:57:37.864 --> 00:57:40.787 patient wants to be transition to adult.

NOTE Confidence: 0.88142488888889

00:57:40.790 --> 00:57:42.758 We have a three year overlap

NOTE Confidence: 0.88142488888889

00:57:42.758 --> 00:57:44.070 where they pediatrician and

NOTE Confidence: 0.88142488888889

00:57:44.132 --> 00:57:45.950 adult take care of the patient.

NOTE Confidence: 0.88142488888889

00:57:45.950 --> 00:57:49.055 So at 18 the first adult base it is

NOTE Confidence: 0.88142488888889

00:57:49.055 --> 00:57:51.841 done and sometimes with me I I take

NOTE Confidence: 0.88142488888889

00:57:51.841 --> 00:57:55.097 a lot of care of the non invasive.

NOTE Confidence: 0.88142488888889

00:57:55.100 --> 00:57:56.785 And that patients will tricks

NOTE Confidence: 0.88142488888889

00:57:56.785 --> 00:57:58.133 and special needs to,

NOTE Confidence: 0.88142488888889

00:57:58.140 --> 00:58:00.860 and so they do that visit with me.

NOTE Confidence: 0.88142488888889

00:58:00.860 --> 00:58:02.936 And then they, or with another

NOTE Confidence: 0.88142488888889

00:58:02.936 --> 00:58:05.499 specialist if it's not in vain invasive.

NOTE Confidence: 0.88142488888889

00:58:05.500 --> 00:58:07.560 If it's not ventilation related

NOTE Confidence: 0.88142488888889

00:58:07.560 --> 00:58:10.076 or city related and then and then

NOTE Confidence: 0.88142488888889
00:58:10.076 --> 00:58:11.990 they go back to the pediatrician
NOTE Confidence: 0.88142488888889
00:58:12.059 --> 00:58:13.715 then they come back to me.
NOTE Confidence: 0.88142488888889
00:58:13.720 --> 00:58:16.345 Then they go back to the pediatrician
NOTE Confidence: 0.88142488888889
00:58:16.345 --> 00:58:18.131 alternating and then at 21 just
NOTE Confidence: 0.88142488888889
00:58:18.131 --> 00:58:19.757 before 21 they have that final
NOTE Confidence: 0.88142488888889
00:58:19.757 --> 00:58:21.330 visit with the pediatrician.
NOTE Confidence: 0.88142488888889
00:58:21.330 --> 00:58:23.367 And then I take over their care
NOTE Confidence: 0.88142488888889
00:58:23.367 --> 00:58:25.200 and that works fantastically.
NOTE Confidence: 0.88142488888889
00:58:25.200 --> 00:58:28.140 Because it gives a 3 year period
NOTE Confidence: 0.88142488888889
00:58:28.140 --> 00:58:30.317 for the patient too in the family
NOTE Confidence: 0.88142488888889
00:58:30.317 --> 00:58:31.880 to get used to that.
NOTE Confidence: 0.88142488888889
00:58:31.880 --> 00:58:33.518 So it it it has worked really
NOTE Confidence: 0.88142488888889
00:58:33.518 --> 00:58:35.597 well if if we also because we
NOTE Confidence: 0.88142488888889
00:58:35.597 --> 00:58:37.237 have very good communication with
NOTE Confidence: 0.88142488888889
00:58:37.237 --> 00:58:38.860 our pediatric colleagues.
NOTE Confidence: 0.664502676666667

00:58:40.110 --> 00:58:41.868 I see Doctor Craig Kenny Perry,
NOTE Confidence: 0.664502676666667

00:58:41.870 --> 00:58:43.250 so he just unmuted himself.
NOTE Confidence: 0.664502676666667

00:58:43.250 --> 00:58:45.749 So feel free to ask her question.
NOTE Confidence: 0.664502676666667

00:58:45.750 --> 00:58:46.870 Oh no, I just wanted to say
NOTE Confidence: 0.664502676666667

00:58:46.870 --> 00:58:48.208 that I I enjoyed the talk,
NOTE Confidence: 0.664502676666667

00:58:48.210 --> 00:58:50.580 I I'm the neuromuscular pulmonologist.
NOTE Confidence: 0.664502676666667

00:58:50.580 --> 00:58:52.710 For for kids at our institution, and.
NOTE Confidence: 0.664502676666667

00:58:52.710 --> 00:58:54.660 It's interesting you're talking about
NOTE Confidence: 0.664502676666667

00:58:54.660 --> 00:58:57.170 the OR nasal versus nasal masks,
NOTE Confidence: 0.664502676666667

00:58:57.170 --> 00:58:58.810 and are are kind of biases.
NOTE Confidence: 0.664502676666667

00:58:58.810 --> 00:59:00.420 We always use nasal masks. Just
NOTE Confidence: 0.714043425

00:59:00.430 --> 00:59:02.450 'cause of a aspiration
NOTE Confidence: 0.714043425

00:59:02.450 --> 00:59:04.880 risk anyway, and certainly
NOTE Confidence: 0.814369559

00:59:04.890 --> 00:59:08.076 it many not so much in the MDA clinic
NOTE Confidence: 0.814369559

00:59:08.076 --> 00:59:09.666 population, but a lot of other patients
NOTE Confidence: 0.814369559

00:59:09.670 --> 00:59:12.706 on non invasive ventilation may have

NOTE Confidence: 0.814369559

00:59:12.706 --> 00:59:14.730 significant cognitive limitations or

NOTE Confidence: 0.814369559

00:59:14.730 --> 00:59:17.100 other reasons that we just prefer to

NOTE Confidence: 0.814369559

00:59:17.100 --> 00:59:18.724 use a nasal mask even though we're

NOTE Confidence: 0.814369559

00:59:18.724 --> 00:59:20.286 dealing with the mouth leak and.

NOTE Confidence: 0.814369559

00:59:20.286 --> 00:59:23.166 The transition issue is authority.

NOTE Confidence: 0.814369559

00:59:23.170 --> 00:59:25.250 One you know, we have a lot of providers

NOTE Confidence: 0.814369559

00:59:25.250 --> 00:59:26.930 who are invested in making it work,

NOTE Confidence: 0.814369559

00:59:26.930 --> 00:59:29.730 but the system stuff is pretty

NOTE Confidence: 0.814369559

00:59:29.730 --> 00:59:32.210 challenging in terms of.

NOTE Confidence: 0.814369559

00:59:32.210 --> 00:59:34.004 You know, we've been talking a

NOTE Confidence: 0.814369559

00:59:34.004 --> 00:59:35.710 little bit about maybe running.

NOTE Confidence: 0.814369559

00:59:35.710 --> 00:59:37.311 You know actually Co.

NOTE Confidence: 0.814369559

00:59:37.311 --> 00:59:37.778 Locating

NOTE Confidence: 0.92803043

00:59:37.790 --> 00:59:40.216 for some visits with pediatric and

NOTE Confidence: 0.92803043

00:59:40.216 --> 00:59:42.178 adult providers 'cause it has been

NOTE Confidence: 0.846934904

00:59:42.210 --> 00:59:44.556 challenging and Jenna we can certainly
NOTE Confidence: 0.846934904

00:59:44.556 --> 00:59:46.596 talk about this offline as well.
NOTE Confidence: 0.846934904

00:59:46.596 --> 00:59:49.206 If you guys have any progress on your side.
NOTE Confidence: 0.846934904

00:59:49.210 --> 00:59:50.395 We are meeting for awhile
NOTE Confidence: 0.846934904

00:59:50.395 --> 00:59:53.039 talking about it, but it's it's.
NOTE Confidence: 0.846934904

00:59:53.040 --> 00:59:54.940 It's hard 'cause Pediatrics and
NOTE Confidence: 0.846934904

00:59:54.940 --> 00:59:56.405 the adult world have different
NOTE Confidence: 0.846934904

00:59:56.405 --> 01:00:00.180 styles and just want everybody to.
NOTE Confidence: 0.846934904

01:00:00.180 --> 01:00:01.292 Feel comfortable to transition.
NOTE Confidence: 0.846934904

01:00:01.292 --> 01:00:02.258 But yeah, I was super
NOTE Confidence: 0.844320668

01:00:02.270 --> 01:00:03.654 interesting talk. Thank you.
NOTE Confidence: 0.844320668

01:00:03.654 --> 01:00:05.544 Yeah, it's it's very challenging.
NOTE Confidence: 0.844320668

01:00:05.544 --> 01:00:07.860 Everyone I talked to it's challenging
NOTE Confidence: 0.844320668

01:00:07.928 --> 01:00:09.763 in every institution unless they
NOTE Confidence: 0.844320668

01:00:09.763 --> 01:00:11.658 have some pre established system
NOTE Confidence: 0.844320668

01:00:11.658 --> 01:00:13.950 and it's going to get increasingly

NOTE Confidence: 0.844320668

01:00:14.015 --> 01:00:15.843 challenging because these patients

NOTE Confidence: 0.844320668

01:00:15.843 --> 01:00:18.585 are surviving more and more absolutely

NOTE Confidence: 0.93676594625

01:00:19.120 --> 01:00:22.096 right. Absolutely well I think we're at time.

NOTE Confidence: 0.93676594625

01:00:22.100 --> 01:00:23.490 I've really enjoyed your talk,

NOTE Confidence: 0.93676594625

01:00:23.490 --> 01:00:25.436 it's excellent and I'm sure you may

NOTE Confidence: 0.93676594625

01:00:25.436 --> 01:00:27.557 get some later questions that pop up.

NOTE Confidence: 0.93676594625

01:00:27.560 --> 01:00:28.970 People might email you but but

NOTE Confidence: 0.93676594625

01:00:28.970 --> 01:00:30.430 thank you again for your time.

NOTE Confidence: 0.93676594625

01:00:30.430 --> 01:00:31.718 It's really been outstanding.

NOTE Confidence: 0.867144282608696

01:00:32.150 --> 01:00:34.230 Thank you. I it was my pleasure to

NOTE Confidence: 0.867144282608696

01:00:34.230 --> 01:00:36.594 be here and please feel free to share

NOTE Confidence: 0.867144282608696

01:00:36.594 --> 01:00:38.959 my email if anyone has any questions.

NOTE Confidence: 0.864786291666667

01:00:39.610 --> 01:00:43.000 Great thank you. OK bye bye bye.