WEBVTT

NOTE duration: ”01:03:00.980”

NOTE Confidence: 0.9094138

00:00:00.080 --> 00:00:02.259 Get started. Welcome to SmiloShares

NOTE Confidence: 0.8875561

00:00:02.879 --> 00:00:04.180 with Primary Care.

NOTE Confidence: 0.99945337

00:00:04.720 --> 00:00:05.859 Just an introduction

NOTE Confidence: 0.95627314

00:00:06.240 --> 00:00:07.460 to this series.

NOTE Confidence: 0.93868965

00:00:08.000 --> 00:00:10.000 Smilo Shares with Primary Care

NOTE Confidence: 0.93868965

00:00:10.000 --> 00:00:10.820 is a collaboration

NOTE Confidence: 0.99611235

00:00:11.280 --> 00:00:13.299 between primary care and oncology

NOTE Confidence: 0.9719274

00:00:13.679 --> 00:00:15.545 here at Yale. I'm Karen

NOTE Confidence: 0.9719274

00:00:15.545 --> 00:00:17.325 Brown, a primary care internist,

NOTE Confidence: 0.9719274

00:00:17.465 --> 00:00:18.585 and I work with Anne

NOTE Confidence: 0.9719274

00:00:18.585 --> 00:00:19.805 Chang, an oncologist

NOTE Confidence: 0.96666217

00:00:20.425 --> 00:00:22.025 and the associate cancer center

NOTE Confidence: 0.96666217

00:00:22.025 --> 00:00:23.564 director for clinical initiatives.

NOTE Confidence: 0.98524714

00:00:23.945 --> 00:00:25.305 We are happy to present

NOTE Confidence: 0.98524714

00:00:25.305 --> 00:00:27.325 today's topic, which is gammopathies.

NOTE Confidence: 0.99889493

00:00:28.529 --> 00:00:29.269 Our perspective

NOTE Confidence: 0.9988131

00:00:29.730 --> 00:00:31.990 in cancer care is distinct

NOTE Confidence: 0.9988131

00:00:32.050 --> 00:00:34.070 in primary care. We're constantly

NOTE Confidence: 0.9988131

00:00:34.210 --> 00:00:36.309 providing advice to prevent cancer,

NOTE Confidence: 0.9699438

00:00:36.610 --> 00:00:38.229 testing to screen for cancer,

NOTE Confidence: 0.9699438

00:00:38.449 --> 00:00:40.629 testing for cancer, and fortunately,

NOTE Confidence: 0.9666285

00:00:41.105 --> 00:00:43.185 far less often, actually finding

NOTE Confidence: 0.9666285

00:00:43.185 --> 00:00:43.925 new cancer.

NOTE Confidence: 0.9831371

00:00:44.465 --> 00:00:46.065 Diagnosing a new cancer, whether

NOTE Confidence: 0.9831371

00:00:46.065 --> 00:00:47.505 by screening or due to

NOTE Confidence: 0.9831371

00:00:47.505 --> 00:00:48.545 a patient complaint, is a

NOTE Confidence: 0.9831371

00:00:48.545 --> 00:00:49.425 time where we want to

NOTE Confidence: 0.9831371

00:00:49.425 --> 00:00:50.805 be as efficient as possible

NOTE Confidence: 0.9831371

00:00:51.025 --> 00:00:51.905 to get our patients to

NOTE Confidence: 0.9831371

00:00:51.905 --> 00:00:53.025 the treatment they need. We

NOTE Confidence: 0.9831371

00:00:53.025 --> 00:00:54.705 are delighted that doctor Chang

NOTE Confidence: 0.9831371

00:00:54.705 --> 00:00:56.225 and our oncology colleagues are

NOTE Confidence: 0.9831371

00:00:56.225 --> 00:00:56.725 interested

NOTE Confidence: 0.9994811

00:00:57.040 --> 00:00:58.880 and willing to explore this

NOTE Confidence: 0.9994811

00:00:58.880 --> 00:01:00.480 interface of care with us

NOTE Confidence: 0.9994811

00:01:00.480 --> 00:01:01.380 in this series.

NOTE Confidence: 0.9975195

00:01:01.920 --> 00:01:03.360 During the talk, please feel

NOTE Confidence: 0.9975195

00:01:03.360 --> 00:01:04.980 free to enter your questions

NOTE Confidence: 0.9975195

00:01:05.120 --> 00:01:06.180 into the chat,

NOTE Confidence: 0.918719

00:01:07.280 --> 00:01:08.160 and we will,

NOTE Confidence: 0.983315

00:01:09.040 --> 00:01:10.240 look at those at at

NOTE Confidence: 0.983315

00:01:10.240 --> 00:01:11.334 the end of the talk.

NOTE Confidence: 0.983315

00:01:11.334 --> 00:01:12.375 We'll we'll try to save

NOTE Confidence: 0.983315

00:01:12.375 --> 00:01:13.034 some time.

NOTE Confidence: 0.97480196

00:01:14.215 --> 00:01:15.735 I'd like to introduce my

NOTE Confidence: 0.97480196

00:01:15.735 --> 00:01:18.055 primary care colleague, doctor Drew

NOTE Confidence: 0.97480196

00:01:18.055 --> 00:01:18.555 Cutney.

NOTE Confidence: 0.99239445

00:01:19.015 --> 00:01:20.875 Doctor Cutney is board certified

NOTE Confidence: 0.99239445

00:01:20.935 --> 00:01:23.034 in internal medicine and pediatrics

NOTE Confidence: 0.97734445

00:01:23.334 --> 00:01:25.174 and a very valuable member

NOTE Confidence: 0.97734445

00:01:25.174 --> 00:01:26.959 of our Northeast Medical Group

NOTE Confidence: 0.97734445

00:01:26.959 --> 00:01:28.260 primary care community.

NOTE Confidence: 0.9799098

00:01:28.880 --> 00:01:30.400 My own first memory of

NOTE Confidence: 0.9799098

00:01:30.400 --> 00:01:31.440 him is he knew how

NOTE Confidence: 0.9799098

00:01:31.440 --> 00:01:32.800 to use Epic better than

NOTE Confidence: 0.9799098

00:01:32.800 --> 00:01:33.700 anybody else,

NOTE Confidence: 0.99852216

00:01:34.400 --> 00:01:36.340 before anybody else did.

NOTE Confidence: 0.84111416

00:01:37.200 --> 00:01:37.960 He practices,

NOTE Confidence: 0.9703027

00:01:38.400 --> 00:01:39.520 he's been with us since

NOTE Confidence: 0.9703027

00:01:39.520 --> 00:01:40.900 two thousand and eight and

NOTE Confidence: 0.9912426

00:01:41.305 --> 00:01:43.084 primary care in Trumbull, Connecticut

NOTE Confidence: 0.9912426

00:01:43.225 --> 00:01:44.045 at the Park

NOTE Confidence: 0.9819878

00:01:44.505 --> 00:01:46.665 Avenue Medical Center. And I'll

NOTE Confidence: 0.9819878

00:01:46.665 --> 00:01:47.945 turn it over to you

NOTE Confidence: 0.9819878

00:01:47.945 --> 00:01:49.305 and to introduce our other

NOTE Confidence: 0.9819878

00:01:49.305 --> 00:01:49.805 panelists.

NOTE Confidence: 0.9872957

00:01:50.585 --> 00:01:51.865 Great. Thanks so much for

NOTE Confidence: 0.9872957

00:01:51.865 --> 00:01:53.625 joining us tonight and for

NOTE Confidence: 0.9872957

00:01:53.625 --> 00:01:55.645 continuing to access this series

NOTE Confidence: 0.9501388

00:01:56.320 --> 00:01:56.820 online.

NOTE Confidence: 0.9784313

00:01:58.880 --> 00:02:00.400 And, I have the honor

NOTE Confidence: 0.9784313

00:02:00.400 --> 00:02:02.259 of introducing the hematologists

NOTE Confidence: 0.97770673

00:02:02.560 --> 00:02:03.920 tonight that are joining us,

NOTE Confidence: 0.97770673

00:02:03.920 --> 00:02:04.420 doctor,

NOTE Confidence: 0.9992006

00:02:05.119 --> 00:02:05.619 Sabrina

NOTE Confidence: 0.86630774

00:02:05.920 --> 00:02:06.420 Browning.

NOTE Confidence: 0.98672915

00:02:06.880 --> 00:02:08.340 That's on the right. She

NOTE Confidence: 0.98672915

00:02:08.480 --> 00:02:10.260 is assistant professor of medicine

NOTE Confidence: 0.92544955

00:02:11.275 --> 00:02:12.955 in hematology, and she received

NOTE Confidence: 0.92544955

00:02:12.955 --> 00:02:14.655 her medical degree from Yukon.

NOTE Confidence: 0.98759955

00:02:15.835 --> 00:02:17.275 And then her internship and

NOTE Confidence: 0.98759955

00:02:17.275 --> 00:02:18.955 residency completed at Yale New

NOTE Confidence: 0.98759955

00:02:18.955 --> 00:02:19.455 Haven

NOTE Confidence: 0.97382843

00:02:19.835 --> 00:02:21.915 Hospital. After residency, she served

NOTE Confidence: 0.97382843

00:02:21.915 --> 00:02:23.375 as an amyloid fellow

NOTE Confidence: 0.9996883

00:02:23.690 --> 00:02:24.590 at the internationally

NOTE Confidence: 0.99509203

00:02:24.889 --> 00:02:25.389 recognized,

NOTE Confidence: 0.8241737

00:02:25.850 --> 00:02:26.350 amyloidis

NOTE Confidence: 0.95550835

00:02:27.050 --> 00:02:27.550 amyloidosis

NOTE Confidence: 0.9631453

00:02:29.370 --> 00:02:30.590 center at BU,

NOTE Confidence: 0.90285164

00:02:31.450 --> 00:02:32.889 in Boston Medical Center. And

NOTE Confidence: 0.90285164

00:02:32.889 --> 00:02:34.010 then she returned to Yale

NOTE Confidence: 0.90285164

00:02:34.010 --> 00:02:35.610 New Haven Hospital to complete

NOTE Confidence: 0.90285164

00:02:35.610 --> 00:02:36.990 her her fellowship

NOTE Confidence: 0.9976137

00:02:37.605 --> 00:02:39.544 in medical oncology and hematology.

NOTE Confidence: 0.9135647

00:02:40.725 --> 00:02:42.245 She's a physician in the

NOTE Confidence: 0.9135647

00:02:42.245 --> 00:02:44.505 Smiling Multiple Myeloma and Gammopathies

NOTE Confidence: 0.9135647

00:02:44.725 --> 00:02:46.485 program, and her clinical and

NOTE Confidence: 0.9135647

00:02:46.485 --> 00:02:47.465 research interests

NOTE Confidence: 0.997943

00:02:47.845 --> 00:02:49.925 include evaluating new treatments for

NOTE Confidence: 0.997943

00:02:49.925 --> 00:02:50.825 multiple myeloma,

NOTE Confidence: 0.9807762

00:02:51.620 --> 00:02:52.120 amyloidosis,

NOTE Confidence: 0.99893194

00:02:52.580 --> 00:02:53.639 and other hematologic

NOTE Confidence: 0.99900854

00:02:54.020 --> 00:02:54.520 diseases.

NOTE Confidence: 0.9090108

00:02:56.500 --> 00:02:57.540 Also, I would like to

NOTE Confidence: 0.9090108

00:02:57.540 --> 00:02:59.460 introduce doctor Nofar Bahr, who's

NOTE Confidence: 0.9090108

00:02:59.460 --> 00:03:01.060 an assistant professor of medicine

NOTE Confidence: 0.9090108

00:03:01.060 --> 00:03:01.800 and hematology

NOTE Confidence: 0.99137217

00:03:02.419 --> 00:03:03.540 at the Yale School of

NOTE Confidence: 0.99137217

00:03:03.540 --> 00:03:05.880 Medicine. She completed her internship

NOTE Confidence: 0.99137217

00:03:06.100 --> 00:03:06.760 and residency

NOTE Confidence: 0.98926264

00:03:07.275 --> 00:03:08.555 at the, at the Mount

NOTE Confidence: 0.98926264

00:03:08.555 --> 00:03:10.334 Sinai hospital and her fellowship

NOTE Confidence: 0.98926264

00:03:10.394 --> 00:03:11.055 at Yale,

NOTE Confidence: 0.9870597

00:03:11.674 --> 00:03:13.595 and received her medical degree

NOTE Confidence: 0.9870597

00:03:13.595 --> 00:03:15.275 from the American medical program

NOTE Confidence: 0.9870597

00:03:15.275 --> 00:03:16.715 at Tel Aviv university in

NOTE Confidence: 0.9870597

00:03:16.715 --> 00:03:18.235 New York. She's a member

NOTE Confidence: 0.9870597

00:03:18.235 --> 00:03:20.460 of ASCO, the American Society

NOTE Confidence: 0.9870597

00:03:20.460 --> 00:03:21.120 of Hematology,

NOTE Confidence: 0.95498836

00:03:21.419 --> 00:03:23.440 the International Myeloma Society,

NOTE Confidence: 0.9996398

00:03:23.820 --> 00:03:25.260 and her research is focused

NOTE Confidence: 0.9996398

00:03:25.260 --> 00:03:26.480 on multiple myeloma

NOTE Confidence: 0.98931074

00:03:26.940 --> 00:03:28.880 and other plasma cell disorders.

NOTE Confidence: 0.97008514

00:03:29.820 --> 00:03:31.580 And she specializes in all

NOTE Confidence: 0.97008514

00:03:31.580 --> 00:03:34.080 treatment modalities for myeloma, including

NOTE Confidence: 0.97008514

00:03:34.139 --> 00:03:34.880 CAR T

NOTE Confidence: 0.97910523

00:03:35.215 --> 00:03:36.655 cell therapy and stem cell

NOTE Confidence: 0.97910523

00:03:36.655 --> 00:03:37.855 transplant. She'll talk a little

NOTE Confidence: 0.97910523

00:03:37.855 --> 00:03:40.415 bit about those as, well

NOTE Confidence: 0.97910523

00:03:40.415 --> 00:03:41.614 tonight. So we've got a

NOTE Confidence: 0.97910523

00:03:41.614 --> 00:03:42.435 great program,

NOTE Confidence: 0.9924224

00:03:44.495 --> 00:03:45.474 for you tonight.

NOTE Confidence: 0.9964973

00:03:45.935 --> 00:03:47.155 Save up your questions.

NOTE Confidence: 0.9849536

00:03:48.015 --> 00:03:49.555 You always have some excellent

NOTE Confidence: 0.9849536

00:03:49.614 --> 00:03:51.530 ones, and I will now

NOTE Confidence: 0.9849536

00:03:51.530 --> 00:03:53.470 turn it over to doctor

NOTE Confidence: 0.9849536

00:03:53.610 --> 00:03:54.810 Barr to sort of set

NOTE Confidence: 0.9849536

00:03:54.810 --> 00:03:56.090 us up with, what we're

NOTE Confidence: 0.9849536

00:03:56.090 --> 00:03:57.550 gonna do tonight. Thank you.

NOTE Confidence: 0.87998945

00:03:58.810 --> 00:04:00.110 Thank you, Anne.

NOTE Confidence: 0.9964571

00:04:00.650 --> 00:04:01.770 And thank you for having

NOTE Confidence: 0.9964571

00:04:01.770 --> 00:04:02.250 us.

NOTE Confidence: 0.9415364

00:04:03.050 --> 00:04:03.550 Today,

NOTE Confidence: 0.99804085

00:04:03.850 --> 00:04:05.130 some of the key points

NOTE Confidence: 0.99804085

00:04:05.130 --> 00:04:06.075 I wanna highlight

NOTE Confidence: 0.9837696

00:04:07.035 --> 00:04:09.114 is reviewing the reference ranges

NOTE Confidence: 0.9837696

00:04:09.114 --> 00:04:09.515 for,

NOTE Confidence: 0.9471642

00:04:09.915 --> 00:04:11.754 serum free light chains, and

NOTE Confidence: 0.9471642

00:04:11.754 --> 00:04:13.435 this could be, affected by

NOTE Confidence: 0.9471642

00:04:13.435 --> 00:04:14.735 age and renal dysfunction.

NOTE Confidence: 0.93600476

00:04:15.194 --> 00:04:16.475 Second, discuss some of the

NOTE Confidence: 0.93600476

00:04:16.475 --> 00:04:19.055 differences between IgA, IG,

NOTE Confidence: 0.96844053

00:04:19.360 --> 00:04:21.779 sorry, IgG, IgA versus IgM

NOTE Confidence: 0.96844053

00:04:21.920 --> 00:04:23.060 monoclonal gammopathies.

NOTE Confidence: 0.9786306

00:04:23.840 --> 00:04:25.360 Define low risk MGUS and

NOTE Confidence: 0.9786306

00:04:25.360 --> 00:04:26.720 discuss how this could be

NOTE Confidence: 0.9786306

00:04:26.720 --> 00:04:28.340 managed by the primary care

NOTE Confidence: 0.9786306

00:04:28.400 --> 00:04:28.900 physician.

NOTE Confidence: 0.9964666

00:04:29.440 --> 00:04:30.980 Discuss some red flags,

NOTE Confidence: 0.9813716

00:04:31.360 --> 00:04:33.520 that warrant more urgent referral

NOTE Confidence: 0.9813716

00:04:33.520 --> 00:04:34.180 to hematology.

NOTE Confidence: 0.95606196

00:04:34.915 --> 00:04:37.075 And also review this, EPIC

NOTE Confidence: 0.95606196

00:04:37.075 --> 00:04:38.214 monoclonal gammopathy

NOTE Confidence: 0.97447276

00:04:38.675 --> 00:04:40.375 pathway we've developed recently

NOTE Confidence: 0.8839699

00:04:40.755 --> 00:04:41.495 and provide,

NOTE Confidence: 0.9965969

00:04:41.875 --> 00:04:43.235 hopefully, you can provide us

NOTE Confidence: 0.9965969

00:04:43.235 --> 00:04:44.935 some feedback over time.

NOTE Confidence: 0.98552215

00:04:45.555 --> 00:04:46.915 So to begin, I wanna

NOTE Confidence: 0.98552215

00:04:46.915 --> 00:04:48.135 start with some background.

NOTE Confidence: 0.95458734

00:04:48.750 --> 00:04:51.310 And monoclonal gammopathies on for

NOTE Confidence: 0.95458734

00:04:51.310 --> 00:04:53.230 the most part, are driven

NOTE Confidence: 0.95458734

00:04:53.230 --> 00:04:55.550 by clonal or abnormal plasma

NOTE Confidence: 0.95458734

00:04:55.550 --> 00:04:57.010 cells within the bone marrow,

NOTE Confidence: 0.97611934

00:04:57.390 --> 00:04:59.089 and they secrete a monoclonal

NOTE Confidence: 0.97611934

00:04:59.310 --> 00:05:00.910 protein called an m spike

NOTE Confidence: 0.97611934

00:05:00.910 --> 00:05:01.810 or m protein

NOTE Confidence: 0.9744372

00:05:03.005 --> 00:05:04.045 as I show you here.

NOTE Confidence: 0.9744372

00:05:04.045 --> 00:05:05.005 And this is a picture

NOTE Confidence: 0.9744372

00:05:05.005 --> 00:05:06.765 of, either an IgG or

NOTE Confidence: 0.9744372

00:05:06.765 --> 00:05:07.425 an IgA.

NOTE Confidence: 0.9694439

00:05:07.964 --> 00:05:09.165 And you can see that

NOTE Confidence: 0.9694439

00:05:09.165 --> 00:05:10.285 a part of the whole

NOTE Confidence: 0.9694439

00:05:10.285 --> 00:05:10.785 antibody

NOTE Confidence: 0.9641216

00:05:11.404 --> 00:05:13.245 is also the the light

NOTE Confidence: 0.9641216

00:05:13.245 --> 00:05:14.545 genes, which is important.

NOTE Confidence: 0.9802624

00:05:15.710 --> 00:05:17.230 I'm I mentioned that most

NOTE Confidence: 0.9802624

00:05:17.230 --> 00:05:18.830 gammopathies are from plasma cells.

NOTE Confidence: 0.9802624

00:05:18.830 --> 00:05:20.350 There are several gammopathies that

NOTE Confidence: 0.9802624

00:05:20.350 --> 00:05:22.029 originate from b cells, clonal

NOTE Confidence: 0.9802624

00:05:22.029 --> 00:05:23.070 b cells, but for the

NOTE Confidence: 0.9802624

00:05:23.070 --> 00:05:24.690 most part, plasma cells.

NOTE Confidence: 0.9766178

00:05:26.110 --> 00:05:28.165 Now when you're thinking about

NOTE Confidence: 0.9766178

00:05:28.165 --> 00:05:29.305 a monoclonal gammopathy,

NOTE Confidence: 0.94791186

00:05:29.605 --> 00:05:30.985 this is the pair protein,

NOTE Confidence: 0.99716586

00:05:31.445 --> 00:05:31.945 evaluation.

NOTE Confidence: 0.9949124

00:05:32.565 --> 00:05:34.005 We do a serum protein

NOTE Confidence: 0.9949124

00:05:34.005 --> 00:05:34.505 electrophoresis,

NOTE Confidence: 0.96094537

00:05:34.885 --> 00:05:36.085 and I show you here

NOTE Confidence: 0.96094537

00:05:36.085 --> 00:05:37.365 what would be normal on

NOTE Confidence: 0.96094537

00:05:37.365 --> 00:05:38.725 the left and on the

NOTE Confidence: 0.96094537

00:05:38.725 --> 00:05:40.485 right, an abnormal spike in

NOTE Confidence: 0.96094537

00:05:40.485 --> 00:05:41.545 the gamma region.

NOTE Confidence: 0.96049064

00:05:42.240 --> 00:05:43.760 There is some differences with

NOTE Confidence: 0.96049064

00:05:43.760 --> 00:05:46.339 gammopathies. For example, IGAs often

NOTE Confidence: 0.96049064

00:05:46.560 --> 00:05:48.000 come in the beta region

NOTE Confidence: 0.96049064

00:05:48.000 --> 00:05:49.279 over here if you see

NOTE Confidence: 0.96049064

00:05:49.279 --> 00:05:50.800 this. And you see the

NOTE Confidence: 0.96049064

00:05:50.800 --> 00:05:52.160 two spikes that actually makes

NOTE Confidence: 0.96049064

00:05:52.160 --> 00:05:53.120 it a little bit more

NOTE Confidence: 0.96049064

00:05:53.120 --> 00:05:53.620 difficult,

NOTE Confidence: 0.9676373

00:05:54.320 --> 00:05:55.620 and often underrepresents

NOTE Confidence: 0.95637333

00:05:56.505 --> 00:05:58.265 IgA gammopathy, so just some

NOTE Confidence: 0.95637333

00:05:58.265 --> 00:05:59.485 key points there.

NOTE Confidence: 0.94700634

00:06:00.105 --> 00:06:00.845 The immunofixation

NOTE Confidence: 0.99862766

00:06:01.785 --> 00:06:02.285 below

NOTE Confidence: 0.9992015

00:06:02.585 --> 00:06:03.085 identifies

NOTE Confidence: 0.97786295

00:06:03.465 --> 00:06:04.905 the clone. Okay? So the

NOTE Confidence: 0.97786295

00:06:04.905 --> 00:06:07.005 SBAP quantifies it. The immunofixation

NOTE Confidence: 0.9372516

00:06:07.545 --> 00:06:09.225 identifies for example, here we

NOTE Confidence: 0.9372516

00:06:09.225 --> 00:06:10.500 see an IgG kappa.

NOTE Confidence: 0.9758394

00:06:11.060 --> 00:06:12.339 In addition to this, we

NOTE Confidence: 0.9758394

00:06:12.339 --> 00:06:13.460 also need to have a

NOTE Confidence: 0.9758394

00:06:13.460 --> 00:06:14.360 serum free,

NOTE Confidence: 0.98526984

00:06:14.900 --> 00:06:15.640 light chains.

NOTE Confidence: 0.9952439

00:06:16.260 --> 00:06:17.380 We do not check urine

NOTE Confidence: 0.9952439

00:06:17.380 --> 00:06:18.600 free light chains anymore.

NOTE Confidence: 0.98977566

00:06:19.060 --> 00:06:19.540 And,

NOTE Confidence: 0.95582944

00:06:19.940 --> 00:06:21.300 the importance of this one,

NOTE Confidence: 0.95582944

00:06:21.300 --> 00:06:23.025 it helps us with, some

NOTE Confidence: 0.95582944

00:06:23.025 --> 00:06:25.505 risk stratification diagnosis myeloma, but,

NOTE Confidence: 0.95582944

00:06:25.505 --> 00:06:27.525 also, there's a few patients,

NOTE Confidence: 0.9885211

00:06:28.145 --> 00:06:29.685 about twenty percent of myeloma,

NOTE Confidence: 0.99719524

00:06:30.065 --> 00:06:30.565 that

NOTE Confidence: 0.9549946

00:06:30.945 --> 00:06:32.785 presents only with light chain

NOTE Confidence: 0.9549946

00:06:32.785 --> 00:06:33.285 secretions.

NOTE Confidence: 0.95146126

00:06:33.585 --> 00:06:34.625 So you might miss a

NOTE Confidence: 0.95146126

00:06:34.625 --> 00:06:36.710 diagnosis of a if you're

NOTE Confidence: 0.95146126

00:06:36.710 --> 00:06:38.170 not checking the light chains.

NOTE Confidence: 0.97864056

00:06:39.110 --> 00:06:40.790 Additionally, it's important to note,

NOTE Confidence: 0.97864056

00:06:40.790 --> 00:06:41.670 and this is kind of

NOTE Confidence: 0.97864056

00:06:41.670 --> 00:06:43.210 not something you think about,

NOTE Confidence: 0.97864056

00:06:43.270 --> 00:06:45.690 but different labs have different

NOTE Confidence: 0.97864056

00:06:45.830 --> 00:06:46.870 ranges of,

NOTE Confidence: 0.93182474

00:06:47.910 --> 00:06:48.410 abnormalities

NOTE Confidence: 0.9029707

00:06:48.790 --> 00:06:50.250 be because the the

NOTE Confidence: 0.956639

00:06:51.104 --> 00:06:52.544 units are different. So for

NOTE Confidence: 0.956639

00:06:52.544 --> 00:06:54.865 example, Yale uses milligrams per

NOTE Confidence: 0.956639

00:06:54.865 --> 00:06:57.025 deciliter, but Quest, which some

NOTE Confidence: 0.956639

00:06:57.025 --> 00:06:58.785 of our our patients use,

NOTE Confidence: 0.956639

00:06:58.785 --> 00:07:00.485 uses milligrams per liter.

NOTE Confidence: 0.9771769

00:07:00.785 --> 00:07:01.925 So, like, sixty

NOTE Confidence: 0.9560067

00:07:02.384 --> 00:07:04.190 at Quest is six at

NOTE Confidence: 0.9560067

00:07:04.190 --> 00:07:05.630 Yale. So that's important to

NOTE Confidence: 0.9560067

00:07:05.630 --> 00:07:06.910 recognize, and some patients will

NOTE Confidence: 0.9560067

00:07:06.910 --> 00:07:08.430 say, oh my god. Eighty.

NOTE Confidence: 0.9560067

00:07:08.430 --> 00:07:09.570 But it's really eight.

NOTE Confidence: 0.9714458

00:07:10.430 --> 00:07:12.370 So it's important to compare

NOTE Confidence: 0.9714458

00:07:12.510 --> 00:07:14.350 apples and apples and not

NOTE Confidence: 0.9714458

00:07:14.350 --> 00:07:15.490 apples and oranges.

NOTE Confidence: 0.98287344

00:07:17.085 --> 00:07:19.725 The definition of abnormal light

NOTE Confidence: 0.98287344

00:07:19.725 --> 00:07:21.965 chain ratio depends on age.

NOTE Confidence: 0.98287344

00:07:21.965 --> 00:07:23.825 And here is some information

NOTE Confidence: 0.98287344

00:07:23.885 --> 00:07:25.185 from a recent analysis

NOTE Confidence: 0.99740875

00:07:25.725 --> 00:07:26.465 in Iceland

NOTE Confidence: 0.9499066

00:07:26.765 --> 00:07:28.625 where they are testing everyone

NOTE Confidence: 0.9499066

00:07:28.770 --> 00:07:30.150 for monoclonal gammopathy,

NOTE Confidence: 0.97265124

00:07:30.690 --> 00:07:31.970 and they saw that patients

NOTE Confidence: 0.97265124

00:07:31.970 --> 00:07:33.569 who are older tend to

NOTE Confidence: 0.97265124

00:07:33.569 --> 00:07:35.009 have a higher light chain

NOTE Confidence: 0.97265124

00:07:35.009 --> 00:07:36.449 ratio. As you can see

NOTE Confidence: 0.97265124

00:07:36.449 --> 00:07:38.129 here, the higher end is

NOTE Confidence: 0.97265124

00:07:38.129 --> 00:07:39.169 two point five and is

NOTE Confidence: 0.97265124

00:07:39.169 --> 00:07:40.530 a reference range of what's

NOTE Confidence: 0.97265124

00:07:40.530 --> 00:07:41.970 normal in our lab is

NOTE Confidence: 0.97265124

00:07:41.970 --> 00:07:43.349 one point six five.

NOTE Confidence: 0.9995599

00:07:44.835 --> 00:07:45.335 Additionally,

NOTE Confidence: 0.9541732

00:07:45.875 --> 00:07:48.115 creatinine clearance affects light chain

NOTE Confidence: 0.9541732

00:07:48.115 --> 00:07:49.475 ratios. You can see with

NOTE Confidence: 0.9541732

00:07:49.475 --> 00:07:51.875 that lower creatinine clearance or

NOTE Confidence: 0.9541732

00:07:51.875 --> 00:07:54.215 worse renal function, the ratio

NOTE Confidence: 0.9992424

00:07:54.595 --> 00:07:56.515 gets higher at three point

NOTE Confidence: 0.9992424

00:07:56.515 --> 00:07:57.875 three. So when you have

NOTE Confidence: 0.9992424

00:07:57.875 --> 00:07:58.375 someone

NOTE Confidence: 0.95731866

00:07:59.550 --> 00:08:01.150 with, normal IFE and a

NOTE Confidence: 0.95731866

00:08:01.150 --> 00:08:03.150 light chain ratio of two

NOTE Confidence: 0.95731866

00:08:03.150 --> 00:08:04.510 point five, well, it is

NOTE Confidence: 0.95731866

00:08:04.510 --> 00:08:06.050 abnormal in our lab.

NOTE Confidence: 0.99717826

00:08:06.590 --> 00:08:07.710 If they're older or have

NOTE Confidence: 0.99717826

00:08:07.710 --> 00:08:09.389 renal dysfunction, it might actually

NOTE Confidence: 0.99717826

00:08:09.389 --> 00:08:10.130 be normal.

NOTE Confidence: 0.9859681

00:08:11.405 --> 00:08:12.845 So this is, the most

NOTE Confidence: 0.9859681

00:08:12.925 --> 00:08:14.125 this is the spectrum of

NOTE Confidence: 0.9859681

00:08:14.125 --> 00:08:15.185 monoclonal gammopathies.

NOTE Confidence: 0.99786246

00:08:15.565 --> 00:08:16.925 It's not all inclusive, but

NOTE Confidence: 0.99786246

00:08:16.925 --> 00:08:18.765 it's representing the most common

NOTE Confidence: 0.99786246

00:08:18.765 --> 00:08:19.265 gammopathies.

NOTE Confidence: 0.9973603

00:08:19.885 --> 00:08:21.085 You can see here at

NOTE Confidence: 0.9973603

00:08:21.085 --> 00:08:21.825 the end,

NOTE Confidence: 0.9775227

00:08:22.685 --> 00:08:24.125 multiple myeloma, which is the

NOTE Confidence: 0.9775227

00:08:24.125 --> 00:08:24.625 cancer.

NOTE Confidence: 0.991715

00:08:25.005 --> 00:08:25.745 But on

NOTE Confidence: 0.9655811

00:08:26.750 --> 00:08:28.430 the the right is the

NOTE Confidence: 0.9655811

00:08:28.430 --> 00:08:30.430 mono the first or initial

NOTE Confidence: 0.9655811

00:08:30.430 --> 00:08:32.190 precursor state of what we

NOTE Confidence: 0.9655811

00:08:32.190 --> 00:08:34.589 call MGUS, monoclonal gammopathy of

NOTE Confidence: 0.9655811

00:08:34.589 --> 00:08:35.649 undetermined significance.

NOTE Confidence: 0.9968049

00:08:36.510 --> 00:08:37.710 And then it goes through

NOTE Confidence: 0.9968049

00:08:37.710 --> 00:08:38.450 an intermediary

NOTE Confidence: 0.96757066

00:08:38.830 --> 00:08:40.610 stage of smoldering myeloma,

NOTE Confidence: 0.9352103

00:08:41.165 --> 00:08:42.684 with both of these, MGUS

NOTE Confidence: 0.9352103

00:08:42.684 --> 00:08:44.204 and smoldering, another name for

NOTE Confidence: 0.9352103

00:08:44.204 --> 00:08:45.184 smoldering, asymptomatic

NOTE Confidence: 0.97839504

00:08:45.564 --> 00:08:47.725 myeloma, these are precursor states

NOTE Confidence: 0.97839504

00:08:47.725 --> 00:08:49.584 and are not representing cancer

NOTE Confidence: 0.97839504

00:08:49.804 --> 00:08:50.684 and do not need to

NOTE Confidence: 0.97839504

00:08:50.684 --> 00:08:52.444 be treated. And these do

NOTE Confidence: 0.97839504

00:08:52.444 --> 00:08:53.964 not have CRAP criteria, which

NOTE Confidence: 0.97839504

00:08:53.964 --> 00:08:55.184 we'll talk about soon.

NOTE Confidence: 0.9478016

00:08:56.580 --> 00:08:58.339 The major difference when you're

NOTE Confidence: 0.9478016

00:08:58.339 --> 00:08:59.460 evaluating the bone marrow in

NOTE Confidence: 0.9478016

00:08:59.460 --> 00:09:00.500 these patients and part of

NOTE Confidence: 0.9478016

00:09:00.500 --> 00:09:01.160 the diagnosis

NOTE Confidence: 0.9864249

00:09:02.020 --> 00:09:03.320 is that there are less

NOTE Confidence: 0.9864249

00:09:03.540 --> 00:09:05.300 clonal plasma cells with MGUS

NOTE Confidence: 0.9864249

00:09:05.300 --> 00:09:07.059 and more clonal plasma cells

NOTE Confidence: 0.9864249

00:09:07.059 --> 00:09:07.880 with smoldering,

NOTE Confidence: 0.9840264

00:09:08.214 --> 00:09:09.575 less than ten or more

NOTE Confidence: 0.9840264

00:09:09.575 --> 00:09:11.255 than ten percent. And what's

NOTE Confidence: 0.9840264

00:09:11.255 --> 00:09:12.615 relevant for the patient is

NOTE Confidence: 0.9840264

00:09:12.615 --> 00:09:13.835 the risk for progression.

NOTE Confidence: 0.98209006

00:09:14.615 --> 00:09:15.915 One percent with MGUS,

NOTE Confidence: 0.9995045

00:09:16.295 --> 00:09:17.035 ten percent

NOTE Confidence: 0.97533315

00:09:17.415 --> 00:09:19.095 on average per year with

NOTE Confidence: 0.97533315

00:09:19.095 --> 00:09:19.595 smoldering.

NOTE Confidence: 0.96627736

00:09:21.240 --> 00:09:23.400 So I think most of

NOTE Confidence: 0.96627736

00:09:23.400 --> 00:09:24.600 you know that the definition

NOTE Confidence: 0.96627736

00:09:24.600 --> 00:09:25.260 of myeloma

NOTE Confidence: 0.9527952

00:09:25.560 --> 00:09:27.320 requires a clonal plasma cell

NOTE Confidence: 0.9527952

00:09:27.320 --> 00:09:29.480 clone of, clonal plasma cells

NOTE Confidence: 0.9527952

00:09:29.480 --> 00:09:30.280 on the bone marrow of

NOTE Confidence: 0.9527952

00:09:30.280 --> 00:09:31.800 more than ten percent in

NOTE Confidence: 0.9527952

00:09:31.800 --> 00:09:32.860 addition to

NOTE Confidence: 0.9685915

00:09:33.355 --> 00:09:34.635 one or more of the

NOTE Confidence: 0.9685915

00:09:34.635 --> 00:09:36.175 CRAP criteria, including

NOTE Confidence: 0.99727404

00:09:36.475 --> 00:09:38.495 high calcium level, renal insufficiency,

NOTE Confidence: 0.9974269

00:09:38.875 --> 00:09:40.975 anemia, and bony disease.

NOTE Confidence: 0.9803364

00:09:41.434 --> 00:09:43.195 However, about a decade ago

NOTE Confidence: 0.9803364

00:09:43.195 --> 00:09:44.895 now, the definition of myeloma

NOTE Confidence: 0.9803364

00:09:44.955 --> 00:09:45.934 actually changed,

NOTE Confidence: 0.9728267

00:09:46.779 --> 00:09:47.820 And now we have what's

NOTE Confidence: 0.9728267

00:09:47.820 --> 00:09:49.120 called the slim crab.

NOTE Confidence: 0.9927302

00:09:49.740 --> 00:09:50.540 So for those of you

NOTE Confidence: 0.9927302

00:09:50.540 --> 00:09:51.420 who don't know what the

NOTE Confidence: 0.9927302

00:09:51.420 --> 00:09:53.100 slim crab criteria is, I

NOTE Confidence: 0.9927302

00:09:53.100 --> 00:09:54.860 like to go backwards to

NOTE Confidence: 0.9927302

00:09:54.860 --> 00:09:56.640 review the spectrum of gammopathies

NOTE Confidence: 0.95409274

00:09:57.179 --> 00:09:58.620 to really understand where the

NOTE Confidence: 0.95409274

00:09:58.620 --> 00:09:59.925 slim crab came from.

NOTE Confidence: 0.96959275

00:10:00.404 --> 00:10:01.705 And here you can see

NOTE Confidence: 0.96959275

00:10:01.925 --> 00:10:03.524 that the clonal the the

NOTE Confidence: 0.96959275

00:10:03.524 --> 00:10:05.445 smoldering myeloma is actually a

NOTE Confidence: 0.96959275

00:10:05.445 --> 00:10:07.464 very heterogeneous group of patients.

NOTE Confidence: 0.9625206

00:10:08.245 --> 00:10:09.925 While on average, ten percent

NOTE Confidence: 0.9625206

00:10:09.925 --> 00:10:11.605 progressed to myeloma. There are

NOTE Confidence: 0.9625206

00:10:11.605 --> 00:10:13.684 some patients that behave like

NOTE Confidence: 0.9625206

00:10:13.684 --> 00:10:15.630 MGUS and will never progress,

NOTE Confidence: 0.9625206

00:10:15.770 --> 00:10:17.610 and some patients progress within

NOTE Confidence: 0.9625206

00:10:17.610 --> 00:10:19.130 one to two years and

NOTE Confidence: 0.9625206

00:10:19.130 --> 00:10:20.809 probably should be diagnosed as

NOTE Confidence: 0.9625206

00:10:20.809 --> 00:10:22.570 myeloma. And that is exactly

NOTE Confidence: 0.9625206

00:10:22.570 --> 00:10:24.170 where the slim criteria came

NOTE Confidence: 0.9625206

00:10:24.170 --> 00:10:25.950 from. Researchers identified

NOTE Confidence: 0.9994814

00:10:26.330 --> 00:10:26.830 factors

NOTE Confidence: 0.9992917

00:10:27.644 --> 00:10:29.245 that led to a risk

NOTE Confidence: 0.9992917

00:10:29.245 --> 00:10:30.785 of progression of myeloma

NOTE Confidence: 0.9523018

00:10:31.485 --> 00:10:33.644 at two years at eighty

NOTE Confidence: 0.9523018

00:10:33.644 --> 00:10:34.144 percent.

NOTE Confidence: 0.8814944

00:10:34.605 --> 00:10:35.725 And they said, we are

NOTE Confidence: 0.8814944

00:10:35.804 --> 00:10:36.704 this is unacceptable,

NOTE Confidence: 0.99294376

00:10:37.084 --> 00:10:38.365 and patients should be treated

NOTE Confidence: 0.99294376

00:10:38.365 --> 00:10:39.985 for myeloma. And this is

NOTE Confidence: 0.98946583

00:10:40.290 --> 00:10:42.050 sixty percent clonal plasma cells

NOTE Confidence: 0.98946583

00:10:42.050 --> 00:10:43.089 in the bone marrow or

NOTE Confidence: 0.98946583

00:10:43.089 --> 00:10:44.850 more, a light chain ratio

NOTE Confidence: 0.98946583

00:10:44.850 --> 00:10:45.750 over a hundred,

NOTE Confidence: 0.99922156

00:10:46.209 --> 00:10:46.950 and having

NOTE Confidence: 0.8756873

00:10:47.410 --> 00:10:49.089 more than one bony lesion

NOTE Confidence: 0.8756873

00:10:49.089 --> 00:10:51.170 on advanced imaging, like whole

NOTE Confidence: 0.8756873

00:10:51.170 --> 00:10:53.029 body MRI, PET scan.

NOTE Confidence: 0.99795693

00:10:54.985 --> 00:10:55.964 So with that,

NOTE Confidence: 0.9993771

00:10:56.505 --> 00:10:57.165 we will

NOTE Confidence: 0.9652113

00:10:57.945 --> 00:10:59.325 move forward to our cases.

NOTE Confidence: 0.9069736

00:11:01.865 --> 00:11:02.845 Thanks, Nafoor.

NOTE Confidence: 0.9334631

00:11:04.024 --> 00:11:05.385 So before we get into

NOTE Confidence: 0.9334631

00:11:05.385 --> 00:11:06.505 this case, just wanna give

NOTE Confidence: 0.9334631

00:11:06.505 --> 00:11:06.985 a brief,

NOTE Confidence: 0.87729573

00:11:10.000 --> 00:11:11.440 context of the four case

NOTE Confidence: 0.87729573

00:11:11.440 --> 00:11:12.240 that I'm gonna bring in,

NOTE Confidence: 0.87729573

00:11:12.240 --> 00:11:13.120 and and these are all

NOTE Confidence: 0.87729573

00:11:13.120 --> 00:11:14.420 cases from a panel.

NOTE Confidence: 0.95970446

00:11:15.680 --> 00:11:17.200 They're relatively fresh, which means

NOTE Confidence: 0.95970446

00:11:17.200 --> 00:11:18.480 that they they're they're either

NOTE Confidence: 0.95970446

00:11:18.480 --> 00:11:20.240 a new diagnosis of of

NOTE Confidence: 0.95970446

00:11:20.240 --> 00:11:20.740 monoclonal,

NOTE Confidence: 0.95284945

00:11:21.280 --> 00:11:23.275 gammopathy or it's a new

NOTE Confidence: 0.95284945

00:11:23.275 --> 00:11:24.315 patient to me that I

NOTE Confidence: 0.95284945

00:11:24.315 --> 00:11:25.375 had to get to know

NOTE Confidence: 0.95284945

00:11:25.675 --> 00:11:27.455 or it it's either

NOTE Confidence: 0.9561799

00:11:29.035 --> 00:11:30.175 a change in the clinical

NOTE Confidence: 0.9561799

00:11:30.235 --> 00:11:31.295 status that,

NOTE Confidence: 0.99734575

00:11:32.475 --> 00:11:33.695 has happened recently.

NOTE Confidence: 0.9690148

00:11:34.395 --> 00:11:35.595 And the one thing I

NOTE Confidence: 0.9690148

00:11:35.595 --> 00:11:35.995 just wanna,

NOTE Confidence: 0.8948984

00:11:36.690 --> 00:11:37.890 have you pay attention to

NOTE Confidence: 0.8948984

00:11:37.890 --> 00:11:39.490 is, you know, pay attention

NOTE Confidence: 0.8948984

00:11:39.490 --> 00:11:41.010 to crab cure crab criterias.

NOTE Confidence: 0.8948984

00:11:41.010 --> 00:11:42.290 We go through go through

NOTE Confidence: 0.8948984

00:11:42.290 --> 00:11:42.950 the cases,

NOTE Confidence: 0.91515297

00:11:43.809 --> 00:11:44.470 but, also,

NOTE Confidence: 0.99411744

00:11:44.850 --> 00:11:46.290 they don't fit a hundred

NOTE Confidence: 0.99411744

00:11:46.290 --> 00:11:47.510 percent by the book,

NOTE Confidence: 0.97677326

00:11:48.370 --> 00:11:49.650 necessarily. And I think that

NOTE Confidence: 0.97677326

00:11:49.650 --> 00:11:50.530 goes along with a lot

NOTE Confidence: 0.97677326

00:11:50.530 --> 00:11:51.910 of patients that we see.

NOTE Confidence: 0.8409526

00:11:52.465 --> 00:11:54.485 We're we're always, trying to,

NOTE Confidence: 0.7538867

00:11:56.945 --> 00:11:57.605 figure out

NOTE Confidence: 0.9404192

00:11:58.625 --> 00:12:00.405 what's going on from noise.

NOTE Confidence: 0.96928763

00:12:01.745 --> 00:12:02.245 And,

NOTE Confidence: 0.96770674

00:12:02.785 --> 00:12:04.025 their diseases vary,

NOTE Confidence: 0.9874134

00:12:04.465 --> 00:12:05.825 and don't go go by

NOTE Confidence: 0.9874134

00:12:05.825 --> 00:12:06.325 our

NOTE Confidence: 0.96769315

00:12:08.389 --> 00:12:09.990 strict criteria a hundred percent

NOTE Confidence: 0.96769315

00:12:09.990 --> 00:12:11.029 all the time. And but

NOTE Confidence: 0.96769315

00:12:11.029 --> 00:12:12.309 they do represent key points

NOTE Confidence: 0.96769315

00:12:12.309 --> 00:12:13.829 and pearls. So what that's

NOTE Confidence: 0.96769315

00:12:13.829 --> 00:12:15.910 what, with that, we'll jump

NOTE Confidence: 0.96769315

00:12:15.910 --> 00:12:17.589 into our first case. And,

NOTE Confidence: 0.96769315

00:12:17.750 --> 00:12:19.350 this is a fifty year

NOTE Confidence: 0.96769315

00:12:19.350 --> 00:12:20.709 old Hispanic female that was

NOTE Confidence: 0.96769315

00:12:20.709 --> 00:12:21.589 new to me in in

NOTE Confidence: 0.96769315

00:12:21.589 --> 00:12:23.655 twenty twenty one. And for

NOTE Confidence: 0.96769315

00:12:23.655 --> 00:12:24.955 the most part, she was,

NOTE Confidence: 0.99296826

00:12:26.215 --> 00:12:27.175 it was well known that

NOTE Confidence: 0.99296826

00:12:27.175 --> 00:12:27.895 she had MS,

NOTE Confidence: 0.96534085

00:12:28.215 --> 00:12:29.495 that was diagnosed in twenty

NOTE Confidence: 0.96534085

00:12:29.495 --> 00:12:29.995 nineteen,

NOTE Confidence: 0.9993316

00:12:30.934 --> 00:12:31.975 and we talked about that

NOTE Confidence: 0.9993316

00:12:31.975 --> 00:12:32.795 quite a bit.

NOTE Confidence: 0.9924876

00:12:33.255 --> 00:12:34.875 She had presented with incapacitating

NOTE Confidence: 0.9839241

00:12:35.415 --> 00:12:37.070 migraines at that point with

NOTE Confidence: 0.9839241

00:12:37.070 --> 00:12:39.170 vertigo, which prompted the MRI

NOTE Confidence: 0.80452096

00:12:39.710 --> 00:12:40.190 and,

NOTE Confidence: 0.91290164

00:12:40.670 --> 00:12:42.270 confirmed a diagnosis. And she

NOTE Confidence: 0.91290164

00:12:42.270 --> 00:12:43.330 started on Ocrevus,

NOTE Confidence: 0.93722993

00:12:45.630 --> 00:12:47.470 which is, for therapy every

NOTE Confidence: 0.93722993

00:12:47.470 --> 00:12:48.750 six months and had no

NOTE Confidence: 0.93722993

00:12:48.750 --> 00:12:50.350 disease progression and it was

NOTE Confidence: 0.93722993

00:12:50.350 --> 00:12:51.330 otherwise stable.

NOTE Confidence: 0.8078068

00:12:52.335 --> 00:12:53.775 Her her history, otherwise, is

NOTE Confidence: 0.8078068

00:12:53.775 --> 00:12:54.275 noncontributory.

NOTE Confidence: 0.9915323

00:12:55.135 --> 00:12:56.995 She had a cervical fusion,

NOTE Confidence: 0.9906359

00:12:58.255 --> 00:12:59.395 in twenty seventeen,

NOTE Confidence: 0.9561115

00:13:00.335 --> 00:13:01.054 and she had a c

NOTE Confidence: 0.9561115

00:13:01.054 --> 00:13:02.595 section nineteen ninety four.

NOTE Confidence: 0.96887463

00:13:03.302 --> 00:13:04.370 Her family history

NOTE Confidence: 0.86097354

00:13:05.150 --> 00:13:06.530 was notable just for hypertension,

NOTE Confidence: 0.86097354

00:13:06.590 --> 00:13:07.090 hyperlipidemia,

NOTE Confidence: 0.90708363

00:13:07.630 --> 00:13:09.090 heart disease, and substance

NOTE Confidence: 0.7676195

00:13:09.790 --> 00:13:10.290 addiction,

NOTE Confidence: 0.9933499

00:13:11.390 --> 00:13:13.550 and she herself was married.

NOTE Confidence: 0.9933499

00:13:13.550 --> 00:13:14.350 She had a son.

NOTE Confidence: 0.9600946

00:13:16.334 --> 00:13:17.375 She worked in an office

NOTE Confidence: 0.9600946

00:13:17.375 --> 00:13:19.295 setting. She, had a ten

NOTE Confidence: 0.9600946

00:13:19.295 --> 00:13:20.975 pack year tobacco history, but

NOTE Confidence: 0.9600946

00:13:20.975 --> 00:13:22.595 had quit in twenty eleven,

NOTE Confidence: 0.9104646

00:13:22.975 --> 00:13:24.195 and she's locally,

NOTE Confidence: 0.99926263

00:13:24.654 --> 00:13:25.714 born and raised.

NOTE Confidence: 0.988811

00:13:26.574 --> 00:13:27.394 Next slide.

NOTE Confidence: 0.99067754

00:13:29.380 --> 00:13:30.660 And so in the fall

NOTE Confidence: 0.99067754

00:13:30.820 --> 00:13:32.100 last fall in twenty twenty

NOTE Confidence: 0.99067754

00:13:32.100 --> 00:13:33.800 four, she came to me

NOTE Confidence: 0.9995102

00:13:34.179 --> 00:13:35.620 with six months of a

NOTE Confidence: 0.9995102

00:13:35.620 --> 00:13:36.520 chronic cough

NOTE Confidence: 0.9312499

00:13:37.300 --> 00:13:38.920 and this persistent,

NOTE Confidence: 0.90692043

00:13:40.515 --> 00:13:42.375 you know, frequent, really recurrent,

NOTE Confidence: 0.9995022

00:13:42.995 --> 00:13:43.495 bilateral

NOTE Confidence: 0.9242974

00:13:43.795 --> 00:13:46.035 otitis externa where her ears

NOTE Confidence: 0.9242974

00:13:46.035 --> 00:13:47.235 or her external ears were

NOTE Confidence: 0.9242974

00:13:47.235 --> 00:13:48.535 just swollen closed,

NOTE Confidence: 0.97662854

00:13:48.995 --> 00:13:49.815 very tender,

NOTE Confidence: 0.9444238

00:13:51.155 --> 00:13:52.675 really hurting. And she was

NOTE Confidence: 0.9444238

00:13:52.675 --> 00:13:53.815 at her wit's end,

NOTE Confidence: 0.9485955

00:13:54.434 --> 00:13:55.395 not only from the ears,

NOTE Confidence: 0.9485955

00:13:55.395 --> 00:13:56.279 but she had this cough

NOTE Confidence: 0.9485955

00:13:56.279 --> 00:13:57.320 that was relentless. A lot

NOTE Confidence: 0.9485955

00:13:57.320 --> 00:13:59.100 of abdominal pain, couldn't sleep,

NOTE Confidence: 0.9485955

00:13:59.399 --> 00:14:01.339 this dry cough, you know,

NOTE Confidence: 0.9964057

00:14:03.720 --> 00:14:04.220 just

NOTE Confidence: 0.99011576

00:14:05.079 --> 00:14:05.579 unmitigating.

NOTE Confidence: 0.9572034

00:14:06.440 --> 00:14:08.139 And she had seen neurology,

NOTE Confidence: 0.9572034

00:14:08.360 --> 00:14:09.800 ear, nose, and throat and

NOTE Confidence: 0.9572034

00:14:09.800 --> 00:14:11.740 immunology for these things.

NOTE Confidence: 0.961518

00:14:12.895 --> 00:14:14.095 And, when she was coming

NOTE Confidence: 0.961518

00:14:14.095 --> 00:14:14.895 to me, she was asking

NOTE Confidence: 0.961518

00:14:14.895 --> 00:14:15.795 me a lot of questions

NOTE Confidence: 0.961518

00:14:15.855 --> 00:14:17.615 about that workup. So the

NOTE Confidence: 0.961518

00:14:17.615 --> 00:14:18.735 SAR, we looked at the

NOTE Confidence: 0.961518

00:14:18.735 --> 00:14:20.575 cough, looked like a it

NOTE Confidence: 0.961518

00:14:20.575 --> 00:14:21.295 turned out to be a

NOTE Confidence: 0.961518

00:14:21.295 --> 00:14:22.835 really strong GERD trigger,

NOTE Confidence: 0.9989767

00:14:24.175 --> 00:14:24.675 and

NOTE Confidence: 0.8558431

00:14:25.580 --> 00:14:27.900 some allergic postnasal drip. So

NOTE Confidence: 0.8558431

00:14:27.900 --> 00:14:28.940 we addressed that. And then

NOTE Confidence: 0.8558431

00:14:28.940 --> 00:14:31.260 the the recurrent otitis through

NOTE Confidence: 0.8558431

00:14:31.260 --> 00:14:32.880 some Pseudomonas and,

NOTE Confidence: 0.94734573

00:14:33.660 --> 00:14:35.920 you know, sensitive staph oxycelin

NOTE Confidence: 0.94734573

00:14:35.980 --> 00:14:37.580 sensitive staph, and we just

NOTE Confidence: 0.94734573

00:14:37.580 --> 00:14:38.400 treated those

NOTE Confidence: 0.93580717

00:14:38.955 --> 00:14:40.555 accordingly. We got the cough

NOTE Confidence: 0.93580717

00:14:40.555 --> 00:14:42.875 under, control. In the years,

NOTE Confidence: 0.93580717

00:14:42.875 --> 00:14:44.175 we we had a regimen

NOTE Confidence: 0.93580717

00:14:44.315 --> 00:14:44.975 that that

NOTE Confidence: 0.9879346

00:14:45.355 --> 00:14:46.335 settled down.

NOTE Confidence: 0.98347986

00:14:47.035 --> 00:14:49.375 But during the subspecialty evaluation,

NOTE Confidence: 0.98347986

00:14:49.515 --> 00:14:50.895 she was found to have,

NOTE Confidence: 0.8557809

00:14:51.835 --> 00:14:53.775 so, suppressed b cell

NOTE Confidence: 0.8222955

00:14:54.340 --> 00:14:56.040 presence under flow cytometry,

NOTE Confidence: 0.9653889

00:14:57.140 --> 00:14:58.420 and she had a low

NOTE Confidence: 0.9653889

00:14:58.420 --> 00:15:00.600 I g g two subclass.

NOTE Confidence: 0.9418044

00:15:01.860 --> 00:15:03.460 And then, they they challenged

NOTE Confidence: 0.9418044

00:15:03.460 --> 00:15:04.520 that with a

NOTE Confidence: 0.87217504

00:15:04.980 --> 00:15:05.480 pneumococcal

NOTE Confidence: 0.99953395

00:15:05.780 --> 00:15:06.280 conjugate

NOTE Confidence: 0.910148

00:15:08.135 --> 00:15:09.575 vaccine and it and it

NOTE Confidence: 0.910148

00:15:09.735 --> 00:15:12.075 and and no antibody responded.

NOTE Confidence: 0.95748353

00:15:12.855 --> 00:15:14.695 So the the theory was

NOTE Confidence: 0.95748353

00:15:14.695 --> 00:15:15.895 that this was from her

NOTE Confidence: 0.95748353

00:15:15.895 --> 00:15:16.395 ocrevus,

NOTE Confidence: 0.90525013

00:15:16.855 --> 00:15:18.135 the suppressing her b cell

NOTE Confidence: 0.90525013

00:15:18.135 --> 00:15:19.895 colonies, and that in turn

NOTE Confidence: 0.90525013

00:15:19.895 --> 00:15:20.395 was

NOTE Confidence: 0.6441192

00:15:22.120 --> 00:15:22.940 causing return

NOTE Confidence: 0.92665595

00:15:23.240 --> 00:15:24.780 recurrent otitis externus.

NOTE Confidence: 0.956531

00:15:26.040 --> 00:15:27.560 The interesting thing here is

NOTE Confidence: 0.956531

00:15:27.560 --> 00:15:29.400 that on her SPEP and

NOTE Confidence: 0.956531

00:15:29.400 --> 00:15:30.140 her immunofixation,

NOTE Confidence: 0.9871132

00:15:32.280 --> 00:15:34.300 she had an IgA kappa

NOTE Confidence: 0.9946617

00:15:35.115 --> 00:15:37.775 monoclonal protein. So next slide.

NOTE Confidence: 0.90182406

00:15:39.435 --> 00:15:40.715 And, you know, the key

NOTE Confidence: 0.90182406

00:15:40.715 --> 00:15:42.155 points to eval is that

NOTE Confidence: 0.90182406

00:15:42.155 --> 00:15:43.615 she had she's not anemic.

NOTE Confidence: 0.90182406

00:15:43.675 --> 00:15:45.035 She had good new, renal

NOTE Confidence: 0.90182406

00:15:45.035 --> 00:15:46.635 function. She had noble calcium

NOTE Confidence: 0.90182406

00:15:46.635 --> 00:15:47.135 levels.

NOTE Confidence: 0.94670165

00:15:47.480 --> 00:15:49.020 There are no discrete monoclonal

NOTE Confidence: 0.94670165

00:15:49.240 --> 00:15:51.020 bands identified on the SPEP.

NOTE Confidence: 0.9899199

00:15:51.640 --> 00:15:52.140 But

NOTE Confidence: 0.98235655

00:15:52.840 --> 00:15:53.740 on the immunofixation,

NOTE Confidence: 0.98142284

00:15:54.600 --> 00:15:55.340 there were,

NOTE Confidence: 0.9227201

00:15:56.360 --> 00:15:57.980 there was IgA cap identified

NOTE Confidence: 0.9227201

00:15:58.280 --> 00:16:00.440 in three monoclonal components in

NOTE Confidence: 0.9227201

00:16:00.440 --> 00:16:01.845 that beta region that doctor

NOTE Confidence: 0.9227201

00:16:02.084 --> 00:16:03.305 Barr had mentioned earlier.

NOTE Confidence: 0.9988909

00:16:04.004 --> 00:16:06.024 And she had low immunoglobulin

NOTE Confidence: 0.83486587

00:16:06.404 --> 00:16:09.225 levels, IgA and IgG two,

NOTE Confidence: 0.8746695

00:16:09.685 --> 00:16:10.824 and she had elevated

NOTE Confidence: 0.97555256

00:16:11.285 --> 00:16:11.785 kappa

NOTE Confidence: 0.98679084

00:16:12.245 --> 00:16:13.845 light chain with an elevated

NOTE Confidence: 0.98679084

00:16:13.845 --> 00:16:15.204 ratio of three point nine

NOTE Confidence: 0.98679084

00:16:15.204 --> 00:16:15.704 five.

NOTE Confidence: 0.92135125

00:16:16.660 --> 00:16:17.940 She was seeing and this

NOTE Confidence: 0.92135125

00:16:17.940 --> 00:16:19.220 was this was kinda known

NOTE Confidence: 0.92135125

00:16:19.220 --> 00:16:20.340 to me, and then she

NOTE Confidence: 0.92135125

00:16:20.340 --> 00:16:22.120 was unprocessed going to hematology,

NOTE Confidence: 0.92135125

00:16:22.260 --> 00:16:23.380 went to hematology, got the

NOTE Confidence: 0.92135125

00:16:23.380 --> 00:16:24.360 bone marrow biopsy,

NOTE Confidence: 0.9945811

00:16:24.740 --> 00:16:25.860 and that came back with

NOTE Confidence: 0.9945811

00:16:25.860 --> 00:16:27.380 a less than ten percent

NOTE Confidence: 0.9945811

00:16:27.380 --> 00:16:28.840 clonal plasma cell.

NOTE Confidence: 0.982154

00:16:29.415 --> 00:16:29.915 And,

NOTE Confidence: 0.98855

00:16:30.535 --> 00:16:32.635 for further discussion, we have

NOTE Confidence: 0.9569644

00:16:33.175 --> 00:16:35.095 doctor Browning. Great. Thank you

NOTE Confidence: 0.9569644

00:16:35.095 --> 00:16:36.535 very much. So, you know,

NOTE Confidence: 0.9569644

00:16:36.535 --> 00:16:37.975 I think this is a

NOTE Confidence: 0.9569644

00:16:37.975 --> 00:16:38.795 a great case.

NOTE Confidence: 0.932937

00:16:39.175 --> 00:16:40.295 You know, I think with

NOTE Confidence: 0.932937

00:16:40.295 --> 00:16:41.515 this, patient

NOTE Confidence: 0.95894194

00:16:42.009 --> 00:16:42.889 appropriately in the setting of

NOTE Confidence: 0.95894194

00:16:42.889 --> 00:16:43.389 hypogammaglobulinemia

NOTE Confidence: 0.9468427

00:16:44.170 --> 00:16:46.029 and increased frequency of infections,

NOTE Confidence: 0.9552073

00:16:46.569 --> 00:16:48.009 both of which can occur,

NOTE Confidence: 0.9552073

00:16:48.250 --> 00:16:49.709 across the spectrum of monoclonal

NOTE Confidence: 0.9552073

00:16:49.769 --> 00:16:51.050 gammopathy. She had this pair

NOTE Confidence: 0.9552073

00:16:51.050 --> 00:16:52.110 of protein identified.

NOTE Confidence: 0.99456817

00:16:53.130 --> 00:16:54.250 And if you can advance

NOTE Confidence: 0.99456817

00:16:54.250 --> 00:16:54.910 the slide.

NOTE Confidence: 0.9255009

00:16:55.295 --> 00:16:56.035 So importantly,

NOTE Confidence: 0.99182165

00:16:56.495 --> 00:16:57.615 what we wanna talk through

NOTE Confidence: 0.99182165

00:16:57.615 --> 00:16:59.074 is what the patient's diagnosis

NOTE Confidence: 0.99182165

00:16:59.214 --> 00:17:00.574 is, and we'll go through

NOTE Confidence: 0.99182165

00:17:00.574 --> 00:17:02.274 the spectrum of monoclonal gammopathy.

NOTE Confidence: 0.9944618

00:17:02.815 --> 00:17:03.615 Again, she had a bone

NOTE Confidence: 0.9944618

00:17:03.615 --> 00:17:04.975 marrow biopsy showing less than

NOTE Confidence: 0.9944618

00:17:04.975 --> 00:17:06.755 ten percent clonal plasma cells,

NOTE Confidence: 0.9944618

00:17:06.895 --> 00:17:07.934 which in the absence of

NOTE Confidence: 0.9944618

00:17:07.934 --> 00:17:09.615 end organ damage is consistent

NOTE Confidence: 0.9944618

00:17:09.615 --> 00:17:10.355 with MGUS.

NOTE Confidence: 0.98462105

00:17:10.740 --> 00:17:11.780 So she had an IgA

NOTE Confidence: 0.98462105

00:17:11.780 --> 00:17:12.940 kappa MGUS. And we'll talk

NOTE Confidence: 0.98462105

00:17:12.940 --> 00:17:13.960 a little bit about

NOTE Confidence: 0.99558383

00:17:14.260 --> 00:17:15.220 when we think about doing

NOTE Confidence: 0.99558383

00:17:15.220 --> 00:17:16.500 a bone marrow and skeletal

NOTE Confidence: 0.99558383

00:17:16.500 --> 00:17:17.540 imaging and what type of

NOTE Confidence: 0.99558383

00:17:17.540 --> 00:17:18.900 skeletal imaging we are choosing

NOTE Confidence: 0.99558383

00:17:18.900 --> 00:17:19.940 now for our patients with

NOTE Confidence: 0.99558383

00:17:19.940 --> 00:17:20.440 MGUS.

NOTE Confidence: 0.99818563

00:17:21.460 --> 00:17:22.920 As already mentioned,

NOTE Confidence: 0.9134438

00:17:23.460 --> 00:17:24.680 IgA gamopathies

NOTE Confidence: 0.9996985

00:17:25.220 --> 00:17:25.960 are unique

NOTE Confidence: 0.973965

00:17:26.875 --> 00:17:27.835 in a couple of different

NOTE Confidence: 0.973965

00:17:27.835 --> 00:17:28.335 ways.

NOTE Confidence: 0.9379341

00:17:28.635 --> 00:17:30.234 The first being where we

NOTE Confidence: 0.9379341

00:17:30.234 --> 00:17:31.915 see the band migrating on

NOTE Confidence: 0.9379341

00:17:31.915 --> 00:17:32.575 the SPEP,

NOTE Confidence: 0.9890812

00:17:33.115 --> 00:17:34.395 in the beta region as

NOTE Confidence: 0.9890812

00:17:34.395 --> 00:17:35.595 opposed to the gamma region,

NOTE Confidence: 0.9890812

00:17:35.595 --> 00:17:36.635 which is where we see,

NOTE Confidence: 0.9890812

00:17:37.035 --> 00:17:38.415 the majority of our monoclonal

NOTE Confidence: 0.9890812

00:17:38.475 --> 00:17:40.255 gamopathies or monoclonal proteins.

NOTE Confidence: 0.999646

00:17:40.710 --> 00:17:42.090 And this may underestimate

NOTE Confidence: 0.9763716

00:17:42.630 --> 00:17:44.230 the, burden of,

NOTE Confidence: 0.99561626

00:17:44.710 --> 00:17:45.909 clonal plasma cells in the

NOTE Confidence: 0.99561626

00:17:45.909 --> 00:17:47.289 bone marrow. And so,

NOTE Confidence: 0.968089

00:17:47.669 --> 00:17:49.030 with an IgA MGUS, it's

NOTE Confidence: 0.968089

00:17:49.030 --> 00:17:50.230 important to remember, and we'll

NOTE Confidence: 0.968089

00:17:50.230 --> 00:17:51.669 talk through why, you know,

NOTE Confidence: 0.968089

00:17:51.669 --> 00:17:53.109 we never really refer to

NOTE Confidence: 0.968089

00:17:53.109 --> 00:17:54.390 an IgA MGUS or an

NOTE Confidence: 0.968089

00:17:54.390 --> 00:17:56.205 IgA gammopathy as low risk.

NOTE Confidence: 0.92466736

00:17:58.765 --> 00:18:00.365 So this scheme, again, you've

NOTE Confidence: 0.92466736

00:18:00.365 --> 00:18:00.865 seen,

NOTE Confidence: 0.97919244

00:18:01.565 --> 00:18:03.424 illustrates the spectrum of monoclonal

NOTE Confidence: 0.97919244

00:18:03.565 --> 00:18:04.065 gammopathy

NOTE Confidence: 0.8160597

00:18:04.445 --> 00:18:04.945 importantly,

NOTE Confidence: 0.98322517

00:18:05.484 --> 00:18:07.244 in our patient's case. If

NOTE Confidence: 0.98322517

00:18:07.244 --> 00:18:08.144 you can advance,

NOTE Confidence: 0.94710934

00:18:08.765 --> 00:18:10.125 Nofar, she had less than

NOTE Confidence: 0.94710934

00:18:10.125 --> 00:18:12.065 ten percent clonal plasma cells

NOTE Confidence: 0.9745544

00:18:12.409 --> 00:18:13.929 consistent with an MGUS with

NOTE Confidence: 0.9745544

00:18:13.929 --> 00:18:14.890 a one percent risk per

NOTE Confidence: 0.9745544

00:18:14.890 --> 00:18:16.429 year of progressing to myeloma.

NOTE Confidence: 0.9745544

00:18:16.650 --> 00:18:17.369 We could go to the

NOTE Confidence: 0.9745544

00:18:17.369 --> 00:18:18.109 next slide.

NOTE Confidence: 0.9954926

00:18:18.570 --> 00:18:19.789 So this table outlines,

NOTE Confidence: 0.987526

00:18:20.090 --> 00:18:21.710 in further detail the definition

NOTE Confidence: 0.987526

00:18:21.929 --> 00:18:22.669 of MGUS.

NOTE Confidence: 0.9747701

00:18:23.369 --> 00:18:25.690 Importantly, with non IgM MGUS

NOTE Confidence: 0.9747701

00:18:25.690 --> 00:18:26.830 and light chain MGUS,

NOTE Confidence: 0.9832062

00:18:27.135 --> 00:18:28.655 the risk of progression is

NOTE Confidence: 0.9832062

00:18:28.655 --> 00:18:30.815 to multiple myeloma or, light

NOTE Confidence: 0.9832062

00:18:30.815 --> 00:18:31.955 chain or AL amyloidosis.

NOTE Confidence: 0.9745453

00:18:32.335 --> 00:18:33.055 And this is as,

NOTE Confidence: 0.89882374

00:18:34.255 --> 00:18:36.115 indifferent from an IgM MGUS

NOTE Confidence: 0.8751872

00:18:36.655 --> 00:18:38.195 where if patients progress,

NOTE Confidence: 0.9338176

00:18:38.575 --> 00:18:39.809 the majority of the time,

NOTE Confidence: 0.9338176

00:18:39.809 --> 00:18:40.769 they progress to a a

NOTE Confidence: 0.9338176

00:18:40.769 --> 00:18:41.269 lymphoplasmacytic

NOTE Confidence: 0.97536385

00:18:41.809 --> 00:18:43.009 lymphoma or what we refer

NOTE Confidence: 0.97536385

00:18:43.009 --> 00:18:44.549 to as Waldenstrom macroglobulinemia

NOTE Confidence: 0.847583

00:18:45.649 --> 00:18:46.549 with an IGM

NOTE Confidence: 0.93557453

00:18:47.090 --> 00:18:49.269 IGM myeloma being very rare.

NOTE Confidence: 0.990511

00:18:49.570 --> 00:18:51.169 And, as you can see

NOTE Confidence: 0.990511

00:18:51.169 --> 00:18:52.725 across all three of these,

NOTE Confidence: 0.990511

00:18:52.784 --> 00:18:53.284 importantly,

NOTE Confidence: 0.99451846

00:18:53.825 --> 00:18:54.565 the clonal,

NOTE Confidence: 0.9843085

00:18:55.105 --> 00:18:56.385 bone marrow cells are less

NOTE Confidence: 0.9843085

00:18:56.385 --> 00:18:57.365 than ten percent.

NOTE Confidence: 0.9614547

00:18:58.065 --> 00:18:59.825 With non IgM MGUS and

NOTE Confidence: 0.9614547

00:18:59.825 --> 00:19:01.424 IgM MGUS serum m protein

NOTE Confidence: 0.9614547

00:19:01.424 --> 00:19:02.544 is less than three grams.

NOTE Confidence: 0.9614547

00:19:02.544 --> 00:19:04.140 And with light chain MGUS,

NOTE Confidence: 0.9614547

00:19:04.140 --> 00:19:05.340 we see an abnormal light

NOTE Confidence: 0.9614547

00:19:05.340 --> 00:19:06.859 chain ratio and a urine

NOTE Confidence: 0.9614547

00:19:06.859 --> 00:19:08.220 monoclonal protein less than five

NOTE Confidence: 0.9614547

00:19:08.220 --> 00:19:09.420 hundred milligrams on a twenty

NOTE Confidence: 0.9614547

00:19:09.420 --> 00:19:10.400 four hour urine.

NOTE Confidence: 0.90994495

00:19:10.940 --> 00:19:12.140 And, as you can see

NOTE Confidence: 0.90994495

00:19:12.140 --> 00:19:13.020 here on the table with

NOTE Confidence: 0.90994495

00:19:13.020 --> 00:19:14.220 IgM MGUS, there may at

NOTE Confidence: 0.90994495

00:19:14.220 --> 00:19:15.820 least initially be a slightly

NOTE Confidence: 0.90994495

00:19:15.820 --> 00:19:16.710 higher risk of progression,

NOTE Confidence: 0.9528308

00:19:17.525 --> 00:19:18.804 compared to the non IgM

NOTE Confidence: 0.9528308

00:19:18.804 --> 00:19:20.005 MGUS and the light chain,

NOTE Confidence: 0.9528308

00:19:20.164 --> 00:19:21.225 a little bit lower.

NOTE Confidence: 0.93079656

00:19:21.684 --> 00:19:22.244 And we could go to

NOTE Confidence: 0.93079656

00:19:22.244 --> 00:19:23.225 the next slide.

NOTE Confidence: 0.97521347

00:19:24.484 --> 00:19:26.565 So historically, the prevalence of

NOTE Confidence: 0.97521347

00:19:26.565 --> 00:19:28.484 MGUS in individuals over the

NOTE Confidence: 0.97521347

00:19:28.484 --> 00:19:29.765 age of fifty has been

NOTE Confidence: 0.97521347

00:19:29.765 --> 00:19:30.904 reported at three

NOTE Confidence: 0.98269916

00:19:31.330 --> 00:19:33.110 percent. Doctor Barr mentioned that

NOTE Confidence: 0.98269916

00:19:33.330 --> 00:19:34.630 there's a large population,

NOTE Confidence: 0.9766435

00:19:35.810 --> 00:19:37.810 population screening study that was

NOTE Confidence: 0.9766435

00:19:37.810 --> 00:19:39.650 performed in Iceland where approximately

NOTE Confidence: 0.9766435

00:19:39.650 --> 00:19:41.730 seventy five thousand, individuals were

NOTE Confidence: 0.9766435

00:19:41.730 --> 00:19:43.350 screened for monoclonal gammopathy.

NOTE Confidence: 0.946005

00:19:43.865 --> 00:19:44.825 And the prevalence that came

NOTE Confidence: 0.946005

00:19:44.825 --> 00:19:45.625 out of that study was

NOTE Confidence: 0.946005

00:19:45.625 --> 00:19:46.585 a bit higher at five

NOTE Confidence: 0.946005

00:19:46.585 --> 00:19:48.265 percent of individuals over the

NOTE Confidence: 0.946005

00:19:48.265 --> 00:19:49.145 age of fifty. And that

NOTE Confidence: 0.946005

00:19:49.145 --> 00:19:50.265 was that was called the

NOTE Confidence: 0.946005

00:19:50.265 --> 00:19:52.585 I ISTOP, my study, which

NOTE Confidence: 0.946005

00:19:52.585 --> 00:19:53.645 occurred in Iceland.

NOTE Confidence: 0.9946371

00:19:54.825 --> 00:19:56.760 Importantly, MGUS can occur up

NOTE Confidence: 0.9946371

00:19:56.760 --> 00:19:58.119 to four times more,

NOTE Confidence: 0.96220016

00:19:58.560 --> 00:20:00.360 is four times more common

NOTE Confidence: 0.96220016

00:20:00.360 --> 00:20:01.960 in black or African American

NOTE Confidence: 0.96220016

00:20:01.960 --> 00:20:03.400 individuals, and the prevalence may

NOTE Confidence: 0.96220016

00:20:03.400 --> 00:20:04.619 be high in that population.

NOTE Confidence: 0.9885469

00:20:05.320 --> 00:20:06.280 And then we talked about

NOTE Confidence: 0.9885469

00:20:06.280 --> 00:20:07.965 the uniqueness of IgA

NOTE Confidence: 0.97062194

00:20:08.284 --> 00:20:09.184 type gammopathy.

NOTE Confidence: 0.9641401

00:20:10.044 --> 00:20:11.325 It it has been shown

NOTE Confidence: 0.9641401

00:20:11.325 --> 00:20:13.244 in studies to potentially rise

NOTE Confidence: 0.9641401

00:20:13.244 --> 00:20:14.845 more slowly through the prevalence

NOTE Confidence: 0.9641401

00:20:14.845 --> 00:20:16.125 of it rising more slowly

NOTE Confidence: 0.9641401

00:20:16.125 --> 00:20:16.784 with age,

NOTE Confidence: 0.9930688

00:20:17.085 --> 00:20:17.885 although it's thought to be

NOTE Confidence: 0.9930688

00:20:17.885 --> 00:20:19.585 associated with more rapid progression.

NOTE Confidence: 0.9930688

00:20:19.645 --> 00:20:20.945 And in that same

NOTE Confidence: 0.9519808

00:20:21.270 --> 00:20:21.670 large,

NOTE Confidence: 0.78972656

00:20:22.070 --> 00:20:23.850 population screening study, the iStop

NOTE Confidence: 0.78972656

00:20:23.990 --> 00:20:24.650 M study,

NOTE Confidence: 0.9987103

00:20:25.830 --> 00:20:26.730 the investigators

NOTE Confidence: 0.98156667

00:20:27.030 --> 00:20:28.869 looked at, patients with IgA

NOTE Confidence: 0.98156667

00:20:28.869 --> 00:20:30.150 MGUS and compared to them

NOTE Confidence: 0.98156667

00:20:30.150 --> 00:20:31.670 to IgG MGUS and found

NOTE Confidence: 0.98156667

00:20:31.670 --> 00:20:32.810 that those with IgA

NOTE Confidence: 0.97855145

00:20:33.335 --> 00:20:34.875 had a a higher frequency

NOTE Confidence: 0.97855145

00:20:35.015 --> 00:20:36.955 of detecting clonal or abnormal

NOTE Confidence: 0.97855145

00:20:37.175 --> 00:20:38.455 plasma cells in the bone

NOTE Confidence: 0.97855145

00:20:38.455 --> 00:20:38.955 marrow.

NOTE Confidence: 0.9784549

00:20:40.135 --> 00:20:41.175 And so, again, we talked

NOTE Confidence: 0.9784549

00:20:41.175 --> 00:20:42.395 about how with IgA,

NOTE Confidence: 0.9525927

00:20:42.775 --> 00:20:44.175 the m protein may not

NOTE Confidence: 0.9525927

00:20:44.175 --> 00:20:45.575 be a true reflection of

NOTE Confidence: 0.9525927

00:20:45.575 --> 00:20:47.170 the disease burden. And so

NOTE Confidence: 0.9525927

00:20:47.170 --> 00:20:48.050 it's really important to look

NOTE Confidence: 0.9525927

00:20:48.050 --> 00:20:49.570 at IgA levels, serum free

NOTE Confidence: 0.9525927

00:20:49.570 --> 00:20:50.609 light chains, and we'll talk

NOTE Confidence: 0.9525927

00:20:50.609 --> 00:20:52.210 about further workup for our

NOTE Confidence: 0.9525927

00:20:52.210 --> 00:20:53.109 IgA gamopathies.

NOTE Confidence: 0.9897869

00:20:54.369 --> 00:20:56.310 So important when we're considering,

NOTE Confidence: 0.9961766

00:20:56.930 --> 00:20:58.710 the need for additional workup

NOTE Confidence: 0.9914236

00:20:59.215 --> 00:20:59.794 for MGUS,

NOTE Confidence: 0.8580538

00:21:00.575 --> 00:21:01.054 is,

NOTE Confidence: 0.98781306

00:21:01.615 --> 00:21:02.975 risk stratifying. And so we

NOTE Confidence: 0.98781306

00:21:02.975 --> 00:21:03.615 do that,

NOTE Confidence: 0.9836663

00:21:03.934 --> 00:21:06.195 with these three, different factors.

NOTE Confidence: 0.95506257

00:21:06.975 --> 00:21:08.595 Individuals who have an IgG

NOTE Confidence: 0.95506257

00:21:08.734 --> 00:21:10.894 type monoclonal gammopathy, a serum

NOTE Confidence: 0.95506257

00:21:10.894 --> 00:21:12.660 and protein in the, in

NOTE Confidence: 0.95506257

00:21:12.660 --> 00:21:13.860 the serum less than one

NOTE Confidence: 0.95506257

00:21:13.860 --> 00:21:15.140 point five grams in normal

NOTE Confidence: 0.95506257

00:21:15.140 --> 00:21:15.880 light chain,

NOTE Confidence: 0.94506645

00:21:16.340 --> 00:21:17.619 meet the criteria for low

NOTE Confidence: 0.94506645

00:21:17.619 --> 00:21:19.300 risk MGUS. And generally in

NOTE Confidence: 0.94506645

00:21:19.300 --> 00:21:20.900 these patients, we, in the

NOTE Confidence: 0.94506645

00:21:20.900 --> 00:21:22.600 absence of any evidence of

NOTE Confidence: 0.94506645

00:21:22.660 --> 00:21:24.100 the slim crab criteria or

NOTE Confidence: 0.94506645

00:21:24.100 --> 00:21:25.540 end organ damage, we are

NOTE Confidence: 0.94506645

00:21:25.540 --> 00:21:27.380 able to, withhold bone marrow

NOTE Confidence: 0.94506645

00:21:27.380 --> 00:21:29.355 biopsy aspiration and skeletal imaging.

NOTE Confidence: 0.94506645

00:21:29.355 --> 00:21:30.555 And there has been studies

NOTE Confidence: 0.94506645

00:21:30.555 --> 00:21:31.455 looking at this

NOTE Confidence: 0.96547794

00:21:31.835 --> 00:21:33.035 and show in those that

NOTE Confidence: 0.96547794

00:21:33.035 --> 00:21:34.175 meet all three criteria,

NOTE Confidence: 0.96353537

00:21:34.795 --> 00:21:35.915 if we do do not

NOTE Confidence: 0.96353537

00:21:35.915 --> 00:21:37.435 do a bone marrow, we

NOTE Confidence: 0.96353537

00:21:37.435 --> 00:21:38.795 miss less than one percent

NOTE Confidence: 0.96353537

00:21:38.795 --> 00:21:39.755 of patients that could have

NOTE Confidence: 0.96353537

00:21:39.755 --> 00:21:41.515 clinical or active myeloma. And

NOTE Confidence: 0.96353537

00:21:41.515 --> 00:21:42.015 this,

NOTE Confidence: 0.970451

00:21:43.130 --> 00:21:44.170 show it has shown in

NOTE Confidence: 0.970451

00:21:44.170 --> 00:21:46.110 studies also that this population

NOTE Confidence: 0.970451

00:21:46.170 --> 00:21:47.290 has an absolute risk of

NOTE Confidence: 0.970451

00:21:47.290 --> 00:21:48.730 progression at twenty years. It's

NOTE Confidence: 0.970451

00:21:48.730 --> 00:21:50.030 very low at two percent.

NOTE Confidence: 0.95677483

00:21:50.730 --> 00:21:51.850 Now all those that don't

NOTE Confidence: 0.95677483

00:21:51.850 --> 00:21:53.130 meet these criteria, we refer

NOTE Confidence: 0.95677483

00:21:53.130 --> 00:21:54.750 to as non risk, gammopathy.

NOTE Confidence: 0.9884831

00:21:55.050 --> 00:21:56.650 And these are patients where,

NOTE Confidence: 0.9988216

00:21:57.290 --> 00:21:58.575 we definitely want to at

NOTE Confidence: 0.9988216

00:21:58.575 --> 00:21:59.295 least see them in the

NOTE Confidence: 0.9988216

00:21:59.295 --> 00:22:00.915 hematology clinic to discuss

NOTE Confidence: 0.9397921

00:22:01.295 --> 00:22:02.255 whether or not they warrant

NOTE Confidence: 0.9397921

00:22:02.255 --> 00:22:03.295 a bone marrow biopsy,

NOTE Confidence: 0.9306488

00:22:03.615 --> 00:22:05.215 and skeletal image. And and

NOTE Confidence: 0.9306488

00:22:05.215 --> 00:22:06.434 historically for MGUS,

NOTE Confidence: 0.96757275

00:22:06.895 --> 00:22:07.775 for many years, we had

NOTE Confidence: 0.96757275

00:22:07.775 --> 00:22:09.455 been using skeletal surveys, which

NOTE Confidence: 0.96757275

00:22:09.455 --> 00:22:10.415 we know now have very

NOTE Confidence: 0.96757275

00:22:10.415 --> 00:22:12.429 poor sensitivity and specificity. And

NOTE Confidence: 0.96757275

00:22:12.429 --> 00:22:14.269 so guideline recommendations is is

NOTE Confidence: 0.96757275

00:22:14.269 --> 00:22:15.470 instead to use a low

NOTE Confidence: 0.96757275

00:22:15.470 --> 00:22:16.909 dose whole body CT, which

NOTE Confidence: 0.96757275

00:22:16.909 --> 00:22:17.970 we now have available,

NOTE Confidence: 0.98233527

00:22:18.830 --> 00:22:20.029 at the York Street campus

NOTE Confidence: 0.98233527

00:22:20.029 --> 00:22:20.850 for our patients.

NOTE Confidence: 0.9923006

00:22:21.549 --> 00:22:23.169 So in summary, in individuals

NOTE Confidence: 0.9923006

00:22:23.230 --> 00:22:24.669 who have a confirmed MGUS,

NOTE Confidence: 0.9923006

00:22:24.669 --> 00:22:25.789 whether that's a low risk

NOTE Confidence: 0.9923006

00:22:25.789 --> 00:22:26.289 MGUS,

NOTE Confidence: 0.9825854

00:22:27.335 --> 00:22:28.935 who don't warrant any further

NOTE Confidence: 0.9825854

00:22:28.935 --> 00:22:30.535 workup or patients who have

NOTE Confidence: 0.9825854

00:22:30.535 --> 00:22:31.815 a bone marrow biopsy and

NOTE Confidence: 0.9825854

00:22:31.815 --> 00:22:32.535 are found to have less

NOTE Confidence: 0.9825854

00:22:32.535 --> 00:22:33.975 than ten percent clonal plasma

NOTE Confidence: 0.9825854

00:22:33.975 --> 00:22:34.475 cells,

NOTE Confidence: 0.9924672

00:22:34.775 --> 00:22:35.515 our management,

NOTE Confidence: 0.9384459

00:22:35.895 --> 00:22:37.595 is observation and clinical,

NOTE Confidence: 0.94900125

00:22:38.055 --> 00:22:39.990 laboratory follow-up every six months

NOTE Confidence: 0.94900125

00:22:39.990 --> 00:22:41.510 initially in those patients who

NOTE Confidence: 0.94900125

00:22:41.510 --> 00:22:42.650 may be more stable

NOTE Confidence: 0.9884879

00:22:43.030 --> 00:22:44.150 over a longer period of

NOTE Confidence: 0.9884879

00:22:44.150 --> 00:22:45.510 time. We sometimes extend that

NOTE Confidence: 0.9884879

00:22:45.510 --> 00:22:47.210 out, to annual follow-up.

NOTE Confidence: 0.9816632

00:22:49.670 --> 00:22:50.550 So before we move to

NOTE Confidence: 0.9816632

00:22:50.550 --> 00:22:51.430 the next case, I wanted

NOTE Confidence: 0.9816632

00:22:51.430 --> 00:22:52.790 to introduce our SMILO multiple

NOTE Confidence: 0.9816632

00:22:52.790 --> 00:22:54.730 myeloma and gammopathies program,

NOTE Confidence: 0.9668539

00:22:55.484 --> 00:22:55.965 which,

NOTE Confidence: 0.9143327

00:22:56.285 --> 00:22:57.725 includes, in addition to doctor

NOTE Confidence: 0.9143327

00:22:57.725 --> 00:22:59.244 Barr and myself, doctor Natalia

NOTE Confidence: 0.9143327

00:22:59.244 --> 00:23:00.925 Neparizzi, doctor Terry Parker, and

NOTE Confidence: 0.9143327

00:23:00.925 --> 00:23:02.065 doctor Elaine Gorshine,

NOTE Confidence: 0.9434211

00:23:02.765 --> 00:23:04.285 who sees patients in at

NOTE Confidence: 0.9434211

00:23:04.285 --> 00:23:05.805 our SMILO North Haven location

NOTE Confidence: 0.9434211

00:23:05.805 --> 00:23:07.025 and Smilo Guilford.

NOTE Confidence: 0.9823208

00:23:07.799 --> 00:23:08.600 Many of you may be

NOTE Confidence: 0.9823208

00:23:08.600 --> 00:23:09.100 familiar,

NOTE Confidence: 0.96339494

00:23:09.480 --> 00:23:10.840 through Yale Medicine with the

NOTE Confidence: 0.96339494

00:23:10.840 --> 00:23:12.619 hematology eConsult program,

NOTE Confidence: 0.98355716

00:23:13.399 --> 00:23:14.600 that I think may be

NOTE Confidence: 0.98355716

00:23:14.600 --> 00:23:16.119 a good option specifically for

NOTE Confidence: 0.98355716

00:23:16.119 --> 00:23:17.720 patients who who have low

NOTE Confidence: 0.98355716

00:23:17.720 --> 00:23:19.000 risk MGUS or a question

NOTE Confidence: 0.98355716

00:23:19.000 --> 00:23:20.139 of light chain abnormality

NOTE Confidence: 0.97210234

00:23:20.695 --> 00:23:21.815 either due to age or

NOTE Confidence: 0.97210234

00:23:21.815 --> 00:23:23.595 CKD or a question of

NOTE Confidence: 0.97210234

00:23:23.815 --> 00:23:25.575 polyclonal gammopathy, which we didn't

NOTE Confidence: 0.97210234

00:23:25.575 --> 00:23:26.535 talk much about, but can

NOTE Confidence: 0.97210234

00:23:26.535 --> 00:23:28.615 be associated with, liver disease

NOTE Confidence: 0.97210234

00:23:28.615 --> 00:23:30.535 or chronic infection, connective tissue

NOTE Confidence: 0.97210234

00:23:30.535 --> 00:23:32.295 disorders, and importantly does not

NOTE Confidence: 0.97210234

00:23:32.295 --> 00:23:33.755 have any risk of progression

NOTE Confidence: 0.9971228

00:23:34.210 --> 00:23:35.730 to myeloma or other plasma

NOTE Confidence: 0.9971228

00:23:35.730 --> 00:23:36.470 cell dyscrasias.

NOTE Confidence: 0.9977487

00:23:37.010 --> 00:23:38.130 And then we also hold

NOTE Confidence: 0.9977487

00:23:38.130 --> 00:23:39.750 an MGUS clinic monthly,

NOTE Confidence: 0.8855741

00:23:40.130 --> 00:23:41.490 at our Smilow North Haven

NOTE Confidence: 0.8855741

00:23:41.490 --> 00:23:43.350 location, and, patients,

NOTE Confidence: 0.99473363

00:23:43.890 --> 00:23:44.790 in that clinic,

NOTE Confidence: 0.9812474

00:23:45.410 --> 00:23:46.850 usually are low risk MGUS

NOTE Confidence: 0.9812474

00:23:46.850 --> 00:23:48.055 or kind of less complicated

NOTE Confidence: 0.9812474

00:23:48.115 --> 00:23:49.475 MGUS patients, and the referral

NOTE Confidence: 0.9812474

00:23:49.475 --> 00:23:50.434 to that clinic is through

NOTE Confidence: 0.9812474

00:23:50.434 --> 00:23:51.635 the same referral process to

NOTE Confidence: 0.9812474

00:23:51.635 --> 00:23:53.655 our, gamopathies program.

NOTE Confidence: 0.92625034

00:23:54.994 --> 00:23:55.875 And so I'll turn it

NOTE Confidence: 0.92625034

00:23:55.875 --> 00:23:57.175 back over to doctor Kuttney.

NOTE Confidence: 0.99835527

00:23:58.275 --> 00:23:58.775 Great.

NOTE Confidence: 0.9762065

00:23:59.090 --> 00:24:00.690 Thank you, Sabrina. I think,

NOTE Confidence: 0.91042113

00:24:01.330 --> 00:24:02.530 those are some good pearls

NOTE Confidence: 0.91042113

00:24:02.530 --> 00:24:03.670 there. I love them.

NOTE Confidence: 0.96167934

00:24:04.290 --> 00:24:05.990 So this next case will,

NOTE Confidence: 0.9845625

00:24:06.770 --> 00:24:08.609 look at a sixty nine

NOTE Confidence: 0.9845625

00:24:08.609 --> 00:24:09.270 year old,

NOTE Confidence: 0.9746491

00:24:09.570 --> 00:24:10.070 male,

NOTE Confidence: 0.9888503

00:24:11.157 --> 00:24:12.345 with who came to me

NOTE Confidence: 0.9888503

00:24:12.345 --> 00:24:13.785 in the fall of last

NOTE Confidence: 0.9888503

00:24:13.785 --> 00:24:14.605 year as well,

NOTE Confidence: 0.8282463

00:24:15.545 --> 00:24:17.005 with per like, a progressive

NOTE Confidence: 0.97432375

00:24:17.865 --> 00:24:18.765 distal neuropathy,

NOTE Confidence: 0.85224015

00:24:20.265 --> 00:24:21.865 at least, over the you

NOTE Confidence: 0.85224015

00:24:21.865 --> 00:24:22.365 know,

NOTE Confidence: 0.93350416

00:24:23.305 --> 00:24:24.605 described as pins and needles

NOTE Confidence: 0.93350416

00:24:24.744 --> 00:24:25.705 in the feet and the

NOTE Confidence: 0.93350416

00:24:25.705 --> 00:24:26.205 hands.

NOTE Confidence: 0.9454508

00:24:26.859 --> 00:24:27.899 He described it as being

NOTE Confidence: 0.9454508

00:24:27.899 --> 00:24:28.779 his feet more than his

NOTE Confidence: 0.9454508

00:24:28.779 --> 00:24:29.820 hands and his left foot

NOTE Confidence: 0.9454508

00:24:29.820 --> 00:24:30.960 more than his right foot.

NOTE Confidence: 0.9439068

00:24:31.419 --> 00:24:33.100 And it was particularly worse

NOTE Confidence: 0.9439068

00:24:33.100 --> 00:24:34.559 in the evening with walking,

NOTE Confidence: 0.98546064

00:24:35.179 --> 00:24:35.659 and,

NOTE Confidence: 0.88297147

00:24:35.980 --> 00:24:37.840 there's absolutely no weakness,

NOTE Confidence: 0.95464224

00:24:39.100 --> 00:24:40.720 and you couldn't really identify,

NOTE Confidence: 0.95464224

00:24:40.940 --> 00:24:41.679 you know,

NOTE Confidence: 0.99488

00:24:42.125 --> 00:24:43.485 exactly when or or how

NOTE Confidence: 0.99488

00:24:43.485 --> 00:24:44.445 it had emerged. It was

NOTE Confidence: 0.99488

00:24:44.445 --> 00:24:45.565 just something that just kind

NOTE Confidence: 0.99488

00:24:45.565 --> 00:24:46.945 of slowly developed.

NOTE Confidence: 0.99918896

00:24:47.645 --> 00:24:48.145 And

NOTE Confidence: 0.9373897

00:24:49.005 --> 00:24:50.845 this past medical history is

NOTE Confidence: 0.9373897

00:24:50.845 --> 00:24:52.125 significant for a p c

NOTE Confidence: 0.9373897

00:24:52.445 --> 00:24:53.985 PBC induced cardiomyopathy,

NOTE Confidence: 0.99569285

00:24:55.600 --> 00:24:57.220 diagnosed in two thousand five,

NOTE Confidence: 0.99489045

00:24:58.240 --> 00:25:00.080 which progressed to, you know,

NOTE Confidence: 0.99489045

00:25:00.080 --> 00:25:00.580 paroxysmal,

NOTE Confidence: 0.96227014

00:25:01.359 --> 00:25:03.039 and atrial fibrillation in in

NOTE Confidence: 0.96227014

00:25:03.039 --> 00:25:03.859 twenty fourteen.

NOTE Confidence: 0.94859374

00:25:04.480 --> 00:25:05.440 They thought that was due

NOTE Confidence: 0.94859374

00:25:05.440 --> 00:25:06.559 to his, he he was

NOTE Confidence: 0.94859374

00:25:06.559 --> 00:25:08.340 a very high volume runner

NOTE Confidence: 0.9725561

00:25:08.879 --> 00:25:10.405 at the time. And,

NOTE Confidence: 0.9589908

00:25:10.885 --> 00:25:12.265 he was successfully ablated,

NOTE Confidence: 0.9747739

00:25:13.765 --> 00:25:15.605 and wanted to it's held

NOTE Confidence: 0.9747739

00:25:15.605 --> 00:25:16.265 in sinus

NOTE Confidence: 0.9170307

00:25:16.565 --> 00:25:17.385 rhythm since.

NOTE Confidence: 0.9859821

00:25:18.085 --> 00:25:19.525 His ulcer he did get

NOTE Confidence: 0.9859821

00:25:19.525 --> 00:25:21.365 diagnosed in twenty eleven with

NOTE Confidence: 0.9859821

00:25:21.365 --> 00:25:22.440 ulcerative colitis,

NOTE Confidence: 0.90954447

00:25:23.300 --> 00:25:24.580 and he was being managed

NOTE Confidence: 0.90954447

00:25:24.580 --> 00:25:26.420 with, Lialda four point eight

NOTE Confidence: 0.90954447

00:25:26.420 --> 00:25:27.320 grams per,

NOTE Confidence: 0.96268636

00:25:27.859 --> 00:25:28.359 deciliter

NOTE Confidence: 0.90264684

00:25:29.140 --> 00:25:31.240 sorry. Per day. I'm sorry.

NOTE Confidence: 0.8778027

00:25:32.420 --> 00:25:33.619 Yeah. He was a frequent

NOTE Confidence: 0.8778027

00:25:33.619 --> 00:25:35.240 sport shooter with the

NOTE Confidence: 0.7462059

00:25:35.540 --> 00:25:36.280 lead exposure,

NOTE Confidence: 0.79487145

00:25:36.705 --> 00:25:37.445 from intending

NOTE Confidence: 0.9086377

00:25:37.825 --> 00:25:39.205 the indoor shooting range,

NOTE Confidence: 0.9664523

00:25:40.225 --> 00:25:41.744 and, his serum level lead

NOTE Confidence: 0.9664523

00:25:41.744 --> 00:25:42.244 level,

NOTE Confidence: 0.968482

00:25:42.625 --> 00:25:44.005 was on baseline,

NOTE Confidence: 0.9780761

00:25:44.544 --> 00:25:46.005 twenty to twenty five,

NOTE Confidence: 0.99526566

00:25:46.784 --> 00:25:48.404 since we started checking it.

NOTE Confidence: 0.99526566

00:25:48.625 --> 00:25:50.065 He stopped attending that indoor

NOTE Confidence: 0.99526566

00:25:50.065 --> 00:25:51.365 range in twenty nineteen.

NOTE Confidence: 0.9975789

00:25:52.440 --> 00:25:53.419 And he was also

NOTE Confidence: 0.95966834

00:25:54.279 --> 00:25:55.080 at the time when I,

NOTE Confidence: 0.95966834

00:25:55.080 --> 00:25:55.879 you know, saw him for

NOTE Confidence: 0.95966834

00:25:55.879 --> 00:25:57.399 this neuropathy symptoms, he was

NOTE Confidence: 0.95966834

00:25:57.399 --> 00:25:58.200 taking a lot of zinc

NOTE Confidence: 0.95966834

00:25:58.200 --> 00:25:59.019 for his ulcerative

NOTE Confidence: 0.98368126

00:25:59.559 --> 00:26:01.500 colitis for whatever reason.

NOTE Confidence: 0.9021925

00:26:01.960 --> 00:26:02.779 Next slide.

NOTE Confidence: 0.9107463

00:26:05.545 --> 00:26:06.845 Other comorbid included

NOTE Confidence: 0.8339238

00:26:07.145 --> 00:26:07.545 some,

NOTE Confidence: 0.9695168

00:26:08.185 --> 00:26:08.685 BPH,

NOTE Confidence: 0.91831905

00:26:09.385 --> 00:26:10.285 you know, prostatic

NOTE Confidence: 0.8837208

00:26:10.984 --> 00:26:11.484 hyperplasia,

NOTE Confidence: 0.9996414

00:26:11.865 --> 00:26:12.925 and some tinnitus.

NOTE Confidence: 0.8912263

00:26:13.705 --> 00:26:14.345 He had,

NOTE Confidence: 0.94357437

00:26:14.984 --> 00:26:16.525 a couple of meniscus surgeries

NOTE Confidence: 0.94357437

00:26:16.825 --> 00:26:18.825 in the two thousands. I

NOTE Confidence: 0.94357437

00:26:18.825 --> 00:26:20.420 think both knees were affected.

NOTE Confidence: 0.9478451

00:26:20.800 --> 00:26:22.660 And, he's a software developer.

NOTE Confidence: 0.9137347

00:26:22.960 --> 00:26:24.320 He played the electric guitar,

NOTE Confidence: 0.9137347

00:26:24.320 --> 00:26:26.400 hence his tinnitus and, a

NOTE Confidence: 0.9137347

00:26:26.400 --> 00:26:28.260 little social alcohol, no elicits.

NOTE Confidence: 0.9110758

00:26:28.880 --> 00:26:30.180 He's married, three kids,

NOTE Confidence: 0.94734436

00:26:30.800 --> 00:26:33.520 distant smoking history, small amount,

NOTE Confidence: 0.94734436

00:26:33.520 --> 00:26:35.200 seven pack years. Spent a

NOTE Confidence: 0.94734436

00:26:35.200 --> 00:26:35.895 lot of time out

NOTE Confidence: 0.9931838

00:26:36.775 --> 00:26:37.175 outdoors.

NOTE Confidence: 0.8036153

00:26:37.734 --> 00:26:38.855 On the note on the

NOTE Confidence: 0.8036153

00:26:38.855 --> 00:26:39.915 family history,

NOTE Confidence: 0.9524099

00:26:40.615 --> 00:26:42.295 Crohn's disease and dementia, his

NOTE Confidence: 0.9524099

00:26:42.295 --> 00:26:43.494 mother and his father had

NOTE Confidence: 0.9524099

00:26:43.494 --> 00:26:45.095 type two diabetes, and his

NOTE Confidence: 0.9524099

00:26:45.095 --> 00:26:46.695 brother had Crohn's disease. And

NOTE Confidence: 0.9524099

00:26:46.695 --> 00:26:47.435 his sister,

NOTE Confidence: 0.89667684

00:26:48.310 --> 00:26:49.350 was suspected to have a

NOTE Confidence: 0.89667684

00:26:49.350 --> 00:26:50.950 non Hodgkin's lymphoma. I can

NOTE Confidence: 0.89667684

00:26:50.950 --> 00:26:51.770 really confirm

NOTE Confidence: 0.8341626

00:26:52.710 --> 00:26:54.090 the the details on that.

NOTE Confidence: 0.93093985

00:26:54.470 --> 00:26:55.350 And then we did an

NOTE Confidence: 0.93093985

00:26:55.350 --> 00:26:55.850 evaluation

NOTE Confidence: 0.9007949

00:26:56.150 --> 00:26:57.050 for his neuropathy.

NOTE Confidence: 0.99720347

00:26:58.710 --> 00:26:59.210 And

NOTE Confidence: 0.9988715

00:27:00.645 --> 00:27:01.145 the

NOTE Confidence: 0.5014536

00:27:01.925 --> 00:27:02.425 the

NOTE Confidence: 0.9402371

00:27:03.365 --> 00:27:04.885 notables are, like, you know,

NOTE Confidence: 0.9402371

00:27:04.885 --> 00:27:07.045 no anemia, normal creatinine, normal

NOTE Confidence: 0.9402371

00:27:07.045 --> 00:27:07.545 calcium.

NOTE Confidence: 0.98040515

00:27:08.085 --> 00:27:09.545 He had no no monoclonal

NOTE Confidence: 0.98040515

00:27:09.685 --> 00:27:10.905 bands on the SPEP.

NOTE Confidence: 0.92357856

00:27:12.260 --> 00:27:13.880 He had an IgA Lambda,

NOTE Confidence: 0.9931263

00:27:14.580 --> 00:27:16.680 that presented on the immunopixation

NOTE Confidence: 0.8773298

00:27:18.420 --> 00:27:20.119 and normal immunoglobulins,

NOTE Confidence: 0.9616365

00:27:20.740 --> 00:27:21.540 and then his,

NOTE Confidence: 0.8616984

00:27:23.300 --> 00:27:24.119 light chain,

NOTE Confidence: 0.91391903

00:27:26.135 --> 00:27:27.255 his lambda light chain of

NOTE Confidence: 0.91391903

00:27:27.255 --> 00:27:28.615 sixty one point two with

NOTE Confidence: 0.91391903

00:27:28.615 --> 00:27:29.095 a,

NOTE Confidence: 0.9779391

00:27:30.135 --> 00:27:32.075 a significantly decreased ratio

NOTE Confidence: 0.99782056

00:27:32.615 --> 00:27:34.315 of zero point zero three

NOTE Confidence: 0.9328003

00:27:34.775 --> 00:27:35.975 was there. And then end

NOTE Confidence: 0.9328003

00:27:35.975 --> 00:27:37.494 of note two, he had

NOTE Confidence: 0.9328003

00:27:37.494 --> 00:27:39.359 this Lyme antibody that was

NOTE Confidence: 0.94283706

00:27:40.080 --> 00:27:41.920 quite high at four point

NOTE Confidence: 0.94283706

00:27:41.920 --> 00:27:42.420 zero.

NOTE Confidence: 0.9782663

00:27:44.320 --> 00:27:45.520 I treated him for Lyme

NOTE Confidence: 0.9782663

00:27:45.520 --> 00:27:46.020 disease.

NOTE Confidence: 0.93871945

00:27:46.799 --> 00:27:48.100 Symptoms didn't change,

NOTE Confidence: 0.93580544

00:27:48.400 --> 00:27:49.600 so I repeated the,

NOTE Confidence: 0.7130627

00:27:50.480 --> 00:27:51.675 the serum free limed,

NOTE Confidence: 0.95079446

00:27:52.235 --> 00:27:53.915 light chains again because, hey,

NOTE Confidence: 0.95079446

00:27:53.915 --> 00:27:55.355 maybe they they got better,

NOTE Confidence: 0.95079446

00:27:55.355 --> 00:27:56.255 but they didn't.

NOTE Confidence: 0.9607179

00:27:57.835 --> 00:27:58.335 And,

NOTE Confidence: 0.7870825

00:27:58.795 --> 00:27:59.915 it referred them on to

NOTE Confidence: 0.7870825

00:27:59.915 --> 00:28:00.415 hematology.

NOTE Confidence: 0.8917166

00:28:01.595 --> 00:28:03.035 And he, you really he

NOTE Confidence: 0.8917166

00:28:03.035 --> 00:28:03.915 went on and got a

NOTE Confidence: 0.8917166

00:28:03.915 --> 00:28:05.115 bone marrow biopsy, and you

NOTE Confidence: 0.8917166

00:28:05.115 --> 00:28:06.815 had ten percent plasma cells

NOTE Confidence: 0.99421245

00:28:07.420 --> 00:28:08.080 with the

NOTE Confidence: 0.6512861

00:28:08.460 --> 00:28:09.280 lambda restriction.

NOTE Confidence: 0.9988009

00:28:09.900 --> 00:28:10.400 And

NOTE Confidence: 0.94254094

00:28:11.500 --> 00:28:12.960 we have a you know,

NOTE Confidence: 0.9472823

00:28:14.780 --> 00:28:15.980 and for discussion, we'll go

NOTE Confidence: 0.9472823

00:28:15.980 --> 00:28:17.660 back to doctor Browning. Great.

NOTE Confidence: 0.9472823

00:28:17.660 --> 00:28:19.260 Thank you. So I think

NOTE Confidence: 0.9472823

00:28:19.260 --> 00:28:19.755 what

NOTE Confidence: 0.99195814

00:28:20.155 --> 00:28:21.275 the difference we're seeing here

NOTE Confidence: 0.99195814

00:28:21.275 --> 00:28:22.635 compared to the first case

NOTE Confidence: 0.99195814

00:28:22.635 --> 00:28:23.755 is that this patient does

NOTE Confidence: 0.99195814

00:28:23.755 --> 00:28:25.915 have ten percent, clonal plasma

NOTE Confidence: 0.99195814

00:28:25.915 --> 00:28:27.135 cells in the bone marrow,

NOTE Confidence: 0.99723154

00:28:27.994 --> 00:28:29.355 which qualifies for at least

NOTE Confidence: 0.99723154

00:28:29.355 --> 00:28:30.415 smoldering myeloma.

NOTE Confidence: 0.9659392

00:28:31.275 --> 00:28:32.075 Looks like he had a

NOTE Confidence: 0.9659392

00:28:32.075 --> 00:28:33.115 PET scan that didn't show

NOTE Confidence: 0.9659392

00:28:33.115 --> 00:28:34.655 any bone lesions. So importantly,

NOTE Confidence: 0.93143654

00:28:35.269 --> 00:28:36.789 with smoldering myeloma, what we're

NOTE Confidence: 0.93143654

00:28:36.789 --> 00:28:37.990 looking to do again is

NOTE Confidence: 0.93143654

00:28:37.990 --> 00:28:39.750 to exclude the slim CRAB

NOTE Confidence: 0.93143654

00:28:39.750 --> 00:28:40.250 criteria.

NOTE Confidence: 0.9842558

00:28:41.509 --> 00:28:42.629 So no evidence of bone

NOTE Confidence: 0.9842558

00:28:42.629 --> 00:28:44.309 lesions. The light chain ratio

NOTE Confidence: 0.9842558

00:28:44.309 --> 00:28:45.269 was less than,

NOTE Confidence: 0.91376066

00:28:45.590 --> 00:28:46.250 a hundred.

NOTE Confidence: 0.972472

00:28:47.110 --> 00:28:48.149 And so, you know, he

NOTE Confidence: 0.972472

00:28:48.149 --> 00:28:50.355 meets criteria for a smoldering

NOTE Confidence: 0.972472

00:28:50.355 --> 00:28:51.955 or asymptomatic myeloma, which I

NOTE Confidence: 0.972472

00:28:51.955 --> 00:28:53.075 think what I think is

NOTE Confidence: 0.972472

00:28:53.075 --> 00:28:55.235 complicated or challenging is the

NOTE Confidence: 0.972472

00:28:55.235 --> 00:28:56.855 addition of the the neuropathy

NOTE Confidence: 0.972472

00:28:56.995 --> 00:28:58.135 and question of cardiac

NOTE Confidence: 0.8620783

00:28:58.515 --> 00:29:00.990 cardio cardiac disease, which certainly

NOTE Confidence: 0.8620783

00:29:00.990 --> 00:29:02.050 raises concern,

NOTE Confidence: 0.8965983

00:29:02.510 --> 00:29:03.790 specifically for late chain or

NOTE Confidence: 0.8965983

00:29:03.790 --> 00:29:04.530 AL amyloidosis,

NOTE Confidence: 0.99959016

00:29:04.910 --> 00:29:05.970 which can be seen

NOTE Confidence: 0.88864666

00:29:06.270 --> 00:29:08.270 more frequently in lambda tympic

NOTE Confidence: 0.88864666

00:29:08.270 --> 00:29:08.770 gammopathies.

NOTE Confidence: 0.9868015

00:29:09.630 --> 00:29:10.350 So I think we can

NOTE Confidence: 0.9868015

00:29:10.350 --> 00:29:11.150 go on to the next

NOTE Confidence: 0.9868015

00:29:11.150 --> 00:29:11.650 slide.

NOTE Confidence: 0.8826406

00:29:12.925 --> 00:29:14.045 So again in this case,

NOTE Confidence: 0.8826406

00:29:14.045 --> 00:29:15.005 the patient has,

NOTE Confidence: 0.9175693

00:29:15.485 --> 00:29:17.745 ten percent clonal plasma cells,

NOTE Confidence: 0.9871898

00:29:18.285 --> 00:29:20.045 significant for a smoldering myeloma.

NOTE Confidence: 0.9871898

00:29:20.045 --> 00:29:20.785 We've excluded

NOTE Confidence: 0.9330126

00:29:21.165 --> 00:29:22.525 CRAB criteria, and then he

NOTE Confidence: 0.9330126

00:29:22.525 --> 00:29:23.725 has no evidence of the

NOTE Confidence: 0.9330126

00:29:23.725 --> 00:29:25.345 slim criteria either.

NOTE Confidence: 0.9687636

00:29:26.980 --> 00:29:28.500 And so this figure here

NOTE Confidence: 0.9687636

00:29:28.500 --> 00:29:29.700 shows the difference in the

NOTE Confidence: 0.9687636

00:29:29.700 --> 00:29:30.900 risk of progression as you

NOTE Confidence: 0.9687636

00:29:30.900 --> 00:29:32.500 can see, compared to a

NOTE Confidence: 0.9687636

00:29:32.500 --> 00:29:33.780 one percent risk per per

NOTE Confidence: 0.9687636

00:29:33.780 --> 00:29:35.240 year initially with MGUS.

NOTE Confidence: 0.98324305

00:29:35.860 --> 00:29:37.380 In smoldering myeloma, we see

NOTE Confidence: 0.98324305

00:29:37.380 --> 00:29:38.580 at least initially about a

NOTE Confidence: 0.98324305

00:29:38.580 --> 00:29:39.860 ten percent risk per year

NOTE Confidence: 0.98324305

00:29:39.860 --> 00:29:40.520 of progression.

NOTE Confidence: 0.9670743

00:29:41.015 --> 00:29:42.055 As you can see, the

NOTE Confidence: 0.9670743

00:29:42.055 --> 00:29:43.575 line flattens out with the

NOTE Confidence: 0.9670743

00:29:43.575 --> 00:29:44.555 smoldering and asymptomatic

NOTE Confidence: 0.9779957

00:29:44.855 --> 00:29:46.455 myeloma. As doctor Barr mentioned,

NOTE Confidence: 0.9779957

00:29:46.455 --> 00:29:48.395 smoldering myeloma is very heterogeneous.

NOTE Confidence: 0.9882955

00:29:49.095 --> 00:29:50.295 And those patients who don't

NOTE Confidence: 0.9882955

00:29:50.295 --> 00:29:51.975 progress, you know, over time

NOTE Confidence: 0.9882955

00:29:51.975 --> 00:29:53.255 start to behave more like

NOTE Confidence: 0.9882955

00:29:53.255 --> 00:29:54.695 MGUS. And, you know, I

NOTE Confidence: 0.9882955

00:29:54.695 --> 00:29:56.055 think we often will alter

NOTE Confidence: 0.9882955

00:29:56.055 --> 00:29:57.539 our management to to fit

NOTE Confidence: 0.9882955

00:29:57.539 --> 00:29:58.039 that.

NOTE Confidence: 0.90923315

00:30:00.340 --> 00:30:02.179 So, the definition for the

NOTE Confidence: 0.90923315

00:30:02.179 --> 00:30:02.679 international

NOTE Confidence: 0.961891

00:30:03.139 --> 00:30:04.740 myeloma working group for smoldering

NOTE Confidence: 0.961891

00:30:04.740 --> 00:30:05.860 myeloma, again, we've gone over

NOTE Confidence: 0.961891

00:30:05.860 --> 00:30:06.740 this, but a a a

NOTE Confidence: 0.961891

00:30:06.740 --> 00:30:08.440 clonal plasma cell percentage

NOTE Confidence: 0.9879162

00:30:08.914 --> 00:30:10.515 of ten percent to sixty

NOTE Confidence: 0.9879162

00:30:10.515 --> 00:30:12.515 percent, over sixty percent being

NOTE Confidence: 0.9879162

00:30:12.515 --> 00:30:13.794 consistent with clinical or active

NOTE Confidence: 0.9879162

00:30:13.794 --> 00:30:14.294 myeloma,

NOTE Confidence: 0.9688197

00:30:14.674 --> 00:30:16.274 a monoclonal m protein greater

NOTE Confidence: 0.9688197

00:30:16.274 --> 00:30:17.554 than three, and a urinary

NOTE Confidence: 0.9688197

00:30:17.554 --> 00:30:18.835 m protein greater than five

NOTE Confidence: 0.9688197

00:30:18.835 --> 00:30:19.715 hundred. This is on a

NOTE Confidence: 0.9688197

00:30:19.715 --> 00:30:21.440 twenty four hour urine. Again,

NOTE Confidence: 0.9688197

00:30:21.440 --> 00:30:23.120 importantly, in our asymptomatic or

NOTE Confidence: 0.9688197

00:30:23.120 --> 00:30:25.120 smoldering myeloma patients, we're excluding

NOTE Confidence: 0.9688197

00:30:25.120 --> 00:30:26.480 the presence of slim crab

NOTE Confidence: 0.9688197

00:30:26.480 --> 00:30:27.220 or amyloid,

NOTE Confidence: 0.9222639

00:30:27.680 --> 00:30:28.820 and in particular,

NOTE Confidence: 0.9720468

00:30:29.440 --> 00:30:30.560 ensuring that there is no

NOTE Confidence: 0.9720468

00:30:30.560 --> 00:30:32.160 evidence of bone lesions. And

NOTE Confidence: 0.9720468

00:30:32.160 --> 00:30:33.680 we do that via advanced

NOTE Confidence: 0.9720468

00:30:33.680 --> 00:30:34.880 imaging either with a PET

NOTE Confidence: 0.9720468

00:30:34.880 --> 00:30:35.920 scan or a whole body

NOTE Confidence: 0.9720468

00:30:35.920 --> 00:30:37.255 MRI, both of which we

NOTE Confidence: 0.9720468

00:30:37.255 --> 00:30:39.275 have available here at Yale.

NOTE Confidence: 0.9953363

00:30:40.054 --> 00:30:41.434 Similar to MGUS,

NOTE Confidence: 0.9504647

00:30:41.735 --> 00:30:43.655 we, in smoldering myeloma, once

NOTE Confidence: 0.9504647

00:30:43.655 --> 00:30:45.015 a definition once a a

NOTE Confidence: 0.9504647

00:30:45.015 --> 00:30:46.455 diagnosis is confirmed, we look

NOTE Confidence: 0.9504647

00:30:46.455 --> 00:30:47.995 to risk stratify our patients

NOTE Confidence: 0.9419375

00:30:48.295 --> 00:30:49.415 and most commonly do that

NOTE Confidence: 0.9419375

00:30:49.415 --> 00:30:50.235 with the IMWG

NOTE Confidence: 0.9409655

00:30:50.775 --> 00:30:52.315 two twenty twenty rule,

NOTE Confidence: 0.7846252

00:30:53.159 --> 00:30:53.659 with,

NOTE Confidence: 0.95652026

00:30:54.120 --> 00:30:55.799 high risk criteria being patients

NOTE Confidence: 0.95652026

00:30:55.799 --> 00:30:57.159 who have an m protein

NOTE Confidence: 0.95652026

00:30:57.159 --> 00:30:58.679 or a monoclonal protein in

NOTE Confidence: 0.95652026

00:30:58.679 --> 00:30:59.960 the serum being greater than

NOTE Confidence: 0.95652026

00:30:59.960 --> 00:31:01.179 two grams per deciliter,

NOTE Confidence: 0.994533

00:31:01.799 --> 00:31:03.159 having twenty percent or more

NOTE Confidence: 0.994533

00:31:03.159 --> 00:31:04.519 clonal plasma cells in the

NOTE Confidence: 0.994533

00:31:04.519 --> 00:31:06.395 bone marrow, and having an

NOTE Confidence: 0.994533

00:31:06.395 --> 00:31:07.695 involved or uninvolved

NOTE Confidence: 0.87182945

00:31:08.235 --> 00:31:09.455 involved over uninvolved,

NOTE Confidence: 0.9734176

00:31:09.755 --> 00:31:11.434 serum free lysine ratio of

NOTE Confidence: 0.9734176

00:31:11.434 --> 00:31:12.815 greater than twenty. So,

NOTE Confidence: 0.98062724

00:31:13.195 --> 00:31:14.395 in patients who have a

NOTE Confidence: 0.98062724

00:31:14.395 --> 00:31:15.054 a kappa,

NOTE Confidence: 0.94986373

00:31:15.515 --> 00:31:17.275 gamopathy, that's the kappa over

NOTE Confidence: 0.94986373

00:31:17.275 --> 00:31:17.775 lambda

NOTE Confidence: 0.9348925

00:31:18.190 --> 00:31:19.710 ratio. If in lambda, it's

NOTE Confidence: 0.9348925

00:31:19.710 --> 00:31:20.750 a reverse. And so having

NOTE Confidence: 0.9348925

00:31:20.750 --> 00:31:21.870 that above twenty is a

NOTE Confidence: 0.9348925

00:31:21.870 --> 00:31:23.150 high risk criteria. And then

NOTE Confidence: 0.9348925

00:31:23.150 --> 00:31:24.270 there's a a four,

NOTE Confidence: 0.9979031

00:31:24.830 --> 00:31:25.330 criteria

NOTE Confidence: 0.49571347

00:31:25.790 --> 00:31:26.290 model

NOTE Confidence: 0.9951019

00:31:26.590 --> 00:31:27.970 that includes cytogenetics

NOTE Confidence: 0.9470781

00:31:28.270 --> 00:31:29.230 that are high risk from

NOTE Confidence: 0.9470781

00:31:29.230 --> 00:31:30.190 the bone marrow, which are

NOTE Confidence: 0.9470781

00:31:30.190 --> 00:31:32.190 outlined here. So translocation fourteen

NOTE Confidence: 0.9470781

00:31:32.350 --> 00:31:34.005 before fourteen, fourteen sixteen,

NOTE Confidence: 0.5278481

00:31:34.725 --> 00:31:35.225 having

NOTE Confidence: 0.9689491

00:31:35.845 --> 00:31:36.345 a

NOTE Confidence: 0.86845964

00:31:36.885 --> 00:31:37.265 gain of one q or

NOTE Confidence: 0.86845964

00:31:37.265 --> 00:31:37.765 a deletion of thirteen q.

NOTE Confidence: 0.86845964

00:31:37.765 --> 00:31:38.645 And you can see here

NOTE Confidence: 0.86845964

00:31:38.645 --> 00:31:39.385 in the table,

NOTE Confidence: 0.93833375

00:31:40.005 --> 00:31:41.765 in particular, patients with high

NOTE Confidence: 0.93833375

00:31:41.765 --> 00:31:42.265 risk,

NOTE Confidence: 0.96795225

00:31:42.725 --> 00:31:45.285 smoldering myeloma, which, is three

NOTE Confidence: 0.96795225

00:31:45.285 --> 00:31:46.825 to four of these criteria,

NOTE Confidence: 0.9851897

00:31:47.670 --> 00:31:48.950 have a high risk of

NOTE Confidence: 0.9851897

00:31:48.950 --> 00:31:50.470 progression at two years to

NOTE Confidence: 0.9851897

00:31:50.470 --> 00:31:51.750 clinical or active myeloma with

NOTE Confidence: 0.9851897

00:31:51.750 --> 00:31:53.110 end organ damage of sixty

NOTE Confidence: 0.9851897

00:31:53.110 --> 00:31:53.930 three percent.

NOTE Confidence: 0.94334185

00:31:57.030 --> 00:31:58.310 So to touch very briefly

NOTE Confidence: 0.94334185

00:31:58.310 --> 00:32:00.070 on management of smoldering myeloma

NOTE Confidence: 0.94334185

00:32:00.070 --> 00:32:01.370 which is really evolving,

NOTE Confidence: 0.932354

00:32:02.735 --> 00:32:04.275 with our low or intermediate

NOTE Confidence: 0.932354

00:32:04.415 --> 00:32:06.515 risk, smoldering myeloma patients,

NOTE Confidence: 0.97520906

00:32:07.375 --> 00:32:09.055 we are routinely observing them.

NOTE Confidence: 0.97520906

00:32:09.055 --> 00:32:10.095 We do this a bit

NOTE Confidence: 0.97520906

00:32:10.095 --> 00:32:11.455 more frequently than we do

NOTE Confidence: 0.97520906

00:32:11.455 --> 00:32:12.655 at least initially with our

NOTE Confidence: 0.97520906

00:32:12.655 --> 00:32:13.935 MGUS patients. So we're seeing

NOTE Confidence: 0.97520906

00:32:13.935 --> 00:32:16.170 them and doing laboratory evaluation

NOTE Confidence: 0.97520906

00:32:16.230 --> 00:32:17.510 every three months. And then

NOTE Confidence: 0.97520906

00:32:17.510 --> 00:32:19.210 again, to exclude any presence

NOTE Confidence: 0.97520906

00:32:19.510 --> 00:32:20.950 or development of bone lesions,

NOTE Confidence: 0.97520906

00:32:20.950 --> 00:32:23.030 we get annual, advanced imaging

NOTE Confidence: 0.97520906

00:32:23.030 --> 00:32:24.150 usually with a whole body

NOTE Confidence: 0.97520906

00:32:24.150 --> 00:32:25.690 MRI or a PET scan.

NOTE Confidence: 0.9986887

00:32:26.310 --> 00:32:27.910 Again, the frequency of these

NOTE Confidence: 0.9986887

00:32:27.910 --> 00:32:28.410 evaluations

NOTE Confidence: 0.98871744

00:32:28.710 --> 00:32:29.750 may change over time if

NOTE Confidence: 0.98871744

00:32:29.750 --> 00:32:31.174 patients remain stable.

NOTE Confidence: 0.9948506

00:32:32.195 --> 00:32:33.235 In high risk,

NOTE Confidence: 0.99870944

00:32:33.634 --> 00:32:35.174 smoldering myeloma patients,

NOTE Confidence: 0.9833322

00:32:35.475 --> 00:32:36.674 this is where I think,

NOTE Confidence: 0.9833322

00:32:36.995 --> 00:32:37.955 you know, the field is

NOTE Confidence: 0.9833322

00:32:37.955 --> 00:32:39.174 continuing to evolve,

NOTE Confidence: 0.9801422

00:32:40.195 --> 00:32:41.715 and there are differing opinions,

NOTE Confidence: 0.9801422

00:32:41.715 --> 00:32:42.835 I think, within the field.

NOTE Confidence: 0.9801422

00:32:42.835 --> 00:32:44.514 But in patients with high

NOTE Confidence: 0.9801422

00:32:44.514 --> 00:32:46.500 risk, smoldering myeloma, especially younger

NOTE Confidence: 0.9801422

00:32:46.500 --> 00:32:47.700 patients, I think, you know,

NOTE Confidence: 0.9801422

00:32:47.700 --> 00:32:49.700 we really consider clinical trials,

NOTE Confidence: 0.9801422

00:32:50.019 --> 00:32:51.240 pretty pretty highly.

NOTE Confidence: 0.985082

00:32:52.179 --> 00:32:53.380 We do have some data

NOTE Confidence: 0.985082

00:32:53.380 --> 00:32:54.679 about potential benefit,

NOTE Confidence: 0.9763988

00:32:54.980 --> 00:32:56.899 progression free survival benefit with

NOTE Confidence: 0.9763988

00:32:56.899 --> 00:32:57.559 our immunomodulatory

NOTE Confidence: 0.92898726

00:32:58.179 --> 00:32:59.000 agent lenalidomide,

NOTE Confidence: 0.9359573

00:32:59.705 --> 00:33:00.825 and more recently have a

NOTE Confidence: 0.9359573

00:33:00.825 --> 00:33:02.185 study, a phase three study

NOTE Confidence: 0.9359573

00:33:02.185 --> 00:33:03.865 that was published looking at

NOTE Confidence: 0.9359573

00:33:03.865 --> 00:33:05.385 the anti CD thirty eight

NOTE Confidence: 0.9359573

00:33:05.385 --> 00:33:07.005 monoclonal antibody daratumumab,

NOTE Confidence: 0.98979783

00:33:07.705 --> 00:33:08.985 where there was evidence in

NOTE Confidence: 0.98979783

00:33:08.985 --> 00:33:10.985 high risk, smoldering myeloma of

NOTE Confidence: 0.98979783

00:33:10.985 --> 00:33:12.825 progression free survival benefit and

NOTE Confidence: 0.98979783

00:33:12.825 --> 00:33:14.925 a small overall survival benefit.

NOTE Confidence: 0.98979783

00:33:15.180 --> 00:33:16.140 And then there still is

NOTE Confidence: 0.98979783

00:33:16.140 --> 00:33:17.180 an option, you know, with

NOTE Confidence: 0.98979783

00:33:17.180 --> 00:33:18.620 these patients to observe them

NOTE Confidence: 0.98979783

00:33:18.620 --> 00:33:19.120 closely.

NOTE Confidence: 0.9718658

00:33:19.820 --> 00:33:20.960 You know, I think there

NOTE Confidence: 0.9718658

00:33:21.100 --> 00:33:22.700 there is some thought, again,

NOTE Confidence: 0.9718658

00:33:22.700 --> 00:33:24.300 with the heterogeneity that some

NOTE Confidence: 0.9718658

00:33:24.300 --> 00:33:26.140 patients will progress very quickly.

NOTE Confidence: 0.9718658

00:33:26.140 --> 00:33:27.900 I think in younger patients,

NOTE Confidence: 0.9718658

00:33:27.900 --> 00:33:29.465 doctor Barr will talk about

NOTE Confidence: 0.9718658

00:33:29.465 --> 00:33:31.725 our, therapy, which often includes

NOTE Confidence: 0.9718658

00:33:31.785 --> 00:33:33.465 four drugs. And so treating

NOTE Confidence: 0.9718658

00:33:33.465 --> 00:33:34.985 these high risk myeloma patients,

NOTE Confidence: 0.9718658

00:33:34.985 --> 00:33:36.425 especially young patients with one

NOTE Confidence: 0.9718658

00:33:36.425 --> 00:33:37.865 drug, there is some concern

NOTE Confidence: 0.9718658

00:33:37.865 --> 00:33:38.905 that we could be potentially

NOTE Confidence: 0.9718658

00:33:38.905 --> 00:33:40.425 undertreating them. And then I

NOTE Confidence: 0.9718658

00:33:40.425 --> 00:33:41.165 think importantly,

NOTE Confidence: 0.97819144

00:33:42.185 --> 00:33:43.970 is that patients with smoldering

NOTE Confidence: 0.97819144

00:33:43.970 --> 00:33:44.629 or asymptomatic

NOTE Confidence: 0.9696155

00:33:44.929 --> 00:33:46.210 myeloma, although they may be

NOTE Confidence: 0.9696155

00:33:46.210 --> 00:33:47.649 without symptoms, can have some

NOTE Confidence: 0.9696155

00:33:47.649 --> 00:33:49.190 increased risk of other

NOTE Confidence: 0.9545984

00:33:49.570 --> 00:33:50.070 associated,

NOTE Confidence: 0.92855287

00:33:51.169 --> 00:33:53.269 complications like infections, osteoporosis,

NOTE Confidence: 0.9986831

00:33:53.730 --> 00:33:55.250 thromboembolism, and the risk of

NOTE Confidence: 0.9986831

00:33:55.250 --> 00:33:56.149 secondary malignancies.

NOTE Confidence: 0.9735073

00:33:58.605 --> 00:33:59.805 So I think in conclusion

NOTE Confidence: 0.9735073

00:33:59.805 --> 00:34:00.945 with smoldering myeloma,

NOTE Confidence: 0.9889358

00:34:01.325 --> 00:34:02.625 it is a very heterogeneous

NOTE Confidence: 0.98957366

00:34:02.925 --> 00:34:04.365 disorder. We see some individuals

NOTE Confidence: 0.98957366

00:34:04.365 --> 00:34:05.885 that progress quickly and others

NOTE Confidence: 0.98957366

00:34:05.885 --> 00:34:07.165 who never progress and act

NOTE Confidence: 0.98957366

00:34:07.165 --> 00:34:08.765 more like MGUS, and we

NOTE Confidence: 0.98957366

00:34:08.765 --> 00:34:09.825 tailor our management,

NOTE Confidence: 0.9973197

00:34:10.285 --> 00:34:10.945 to that.

NOTE Confidence: 0.94591546

00:34:11.890 --> 00:34:14.210 And with patients that are

NOTE Confidence: 0.94591546

00:34:14.210 --> 00:34:15.330 behaving more like a low

NOTE Confidence: 0.94591546

00:34:15.330 --> 00:34:16.770 risk MGUS over time, there

NOTE Confidence: 0.94591546

00:34:16.770 --> 00:34:17.590 is a possibility,

NOTE Confidence: 0.98560745

00:34:18.050 --> 00:34:18.930 you know, to have them

NOTE Confidence: 0.98560745

00:34:18.930 --> 00:34:20.130 referred back to their primary

NOTE Confidence: 0.98560745

00:34:20.130 --> 00:34:22.790 care clinician, with close monitoring.

NOTE Confidence: 0.9792013

00:34:23.984 --> 00:34:24.864 Again, in this case, I

NOTE Confidence: 0.9792013

00:34:24.864 --> 00:34:25.605 think what's

NOTE Confidence: 0.9756764

00:34:25.984 --> 00:34:28.385 complicated is the concomitant peripheral

NOTE Confidence: 0.9756764

00:34:28.385 --> 00:34:29.585 neuropathy in the setting of

NOTE Confidence: 0.9756764

00:34:29.585 --> 00:34:31.265 monoclonal gammopathy, which I think

NOTE Confidence: 0.9756764

00:34:31.265 --> 00:34:33.184 also often will warrant a

NOTE Confidence: 0.9756764

00:34:33.184 --> 00:34:34.305 referral so that we can

NOTE Confidence: 0.9756764

00:34:34.305 --> 00:34:35.904 evaluate for more rare plasma

NOTE Confidence: 0.9756764

00:34:35.904 --> 00:34:37.444 cell dyscrasias or other neuropathic

NOTE Confidence: 0.9756764

00:34:37.664 --> 00:34:38.164 symptoms,

NOTE Confidence: 0.8868359

00:34:38.790 --> 00:34:40.070 specifically light chain or AL

NOTE Confidence: 0.8868359

00:34:40.070 --> 00:34:40.570 amyloidosis,

NOTE Confidence: 0.8351038

00:34:41.510 --> 00:34:42.890 POEM syndrome, cryoglobulinemia.

NOTE Confidence: 0.9571092

00:34:43.430 --> 00:34:45.370 And with IgM monoclonal gamopathies,

NOTE Confidence: 0.9571092

00:34:45.510 --> 00:34:46.810 again, we can see rare

NOTE Confidence: 0.9571092

00:34:47.030 --> 00:34:49.050 anti MAG neuropathies and Kanamad

NOTE Confidence: 0.9571092

00:34:49.190 --> 00:34:50.250 syndrome as well.

NOTE Confidence: 0.9677986

00:34:50.885 --> 00:34:52.085 So it is, I think,

NOTE Confidence: 0.9677986

00:34:52.244 --> 00:34:53.605 very reasonable in patients with

NOTE Confidence: 0.9677986

00:34:53.605 --> 00:34:54.105 unexplained

NOTE Confidence: 0.9207878

00:34:54.405 --> 00:34:56.185 new or progressive peripheral neuropathy

NOTE Confidence: 0.9207878

00:34:56.325 --> 00:34:58.244 to consider gammopathy panels. And

NOTE Confidence: 0.9207878

00:34:58.244 --> 00:34:58.744 then,

NOTE Confidence: 0.9893388

00:34:59.125 --> 00:34:59.844 you know, if there is

NOTE Confidence: 0.9893388

00:34:59.844 --> 00:35:02.005 a monoclonal monoclonal protein, refer

NOTE Confidence: 0.9893388

00:35:02.005 --> 00:35:03.285 them to our hematology clinic

NOTE Confidence: 0.9893388

00:35:03.285 --> 00:35:04.885 and our neurology colleagues as

NOTE Confidence: 0.9893388

00:35:04.885 --> 00:35:06.105 well for further evaluation.

NOTE Confidence: 0.9996549

00:35:09.380 --> 00:35:10.260 And I will turn it

NOTE Confidence: 0.9996549

00:35:10.260 --> 00:35:11.480 back over for case three.

NOTE Confidence: 0.90607595

00:35:11.780 --> 00:35:12.280 Great.

NOTE Confidence: 0.9664522

00:35:13.700 --> 00:35:15.219 Okay. So we've had two

NOTE Confidence: 0.9664522

00:35:15.219 --> 00:35:16.520 cases of IgA

NOTE Confidence: 0.89172095

00:35:17.059 --> 00:35:17.559 monoclonals,

NOTE Confidence: 0.9960437

00:35:17.940 --> 00:35:19.079 and we're gonna

NOTE Confidence: 0.97179013

00:35:19.535 --> 00:35:20.655 we're gonna give you an

NOTE Confidence: 0.97179013

00:35:21.015 --> 00:35:22.415 a a different one now.

NOTE Confidence: 0.97179013

00:35:22.415 --> 00:35:23.614 So this is an eighty

NOTE Confidence: 0.97179013

00:35:23.614 --> 00:35:24.915 five year old male,

NOTE Confidence: 0.97689617

00:35:26.015 --> 00:35:28.515 very active, very cognitively sharp.

NOTE Confidence: 0.97689617

00:35:28.735 --> 00:35:30.114 New patient to me in

NOTE Confidence: 0.97689617

00:35:30.335 --> 00:35:32.114 October of twenty twenty.

NOTE Confidence: 0.94114125

00:35:33.530 --> 00:35:34.910 He came to me with

NOTE Confidence: 0.94114125

00:35:34.969 --> 00:35:36.350 a history of hyperlipidemia,

NOTE Confidence: 0.99609536

00:35:37.210 --> 00:35:37.710 hypothyroidism,

NOTE Confidence: 0.95911884

00:35:38.250 --> 00:35:39.550 and some mild,

NOTE Confidence: 0.8760976

00:35:39.930 --> 00:35:41.230 aortic valve stenosis.

NOTE Confidence: 0.9647164

00:35:42.330 --> 00:35:43.850 He had a right shoulder

NOTE Confidence: 0.9647164

00:35:43.850 --> 00:35:45.690 and left hip replacement with

NOTE Confidence: 0.9647164

00:35:45.690 --> 00:35:47.405 the which with a subsequent

NOTE Confidence: 0.9647164

00:35:47.625 --> 00:35:48.685 right total shoulder

NOTE Confidence: 0.9935769

00:35:49.145 --> 00:35:50.605 in twenty twenty three.

NOTE Confidence: 0.63056517

00:35:52.665 --> 00:35:53.485 Never smoker,

NOTE Confidence: 0.9590077

00:35:53.864 --> 00:35:55.225 married with two kids. He's

NOTE Confidence: 0.9590077

00:35:55.225 --> 00:35:57.005 a retired salesman for industrial

NOTE Confidence: 0.9590077

00:35:57.065 --> 00:35:58.045 cable manufacturer.

NOTE Confidence: 0.9863356

00:35:59.150 --> 00:36:00.110 His mom died in her

NOTE Confidence: 0.9863356

00:36:00.110 --> 00:36:00.850 late thirties

NOTE Confidence: 0.9919469

00:36:01.310 --> 00:36:02.930 from postpartum complications.

NOTE Confidence: 0.9741139

00:36:03.630 --> 00:36:05.150 His father and oldest sister

NOTE Confidence: 0.9741139

00:36:05.150 --> 00:36:06.450 died from lung cancer.

NOTE Confidence: 0.9539061

00:36:07.310 --> 00:36:08.670 His older brother died from

NOTE Confidence: 0.9539061

00:36:08.670 --> 00:36:10.830 salivary gland tumor and his

NOTE Confidence: 0.9539061

00:36:10.830 --> 00:36:12.290 second brother of an unknown

NOTE Confidence: 0.9539061

00:36:12.350 --> 00:36:12.850 cause.

NOTE Confidence: 0.9850353

00:36:14.385 --> 00:36:15.585 Prior to coming to me

NOTE Confidence: 0.9850353

00:36:15.585 --> 00:36:16.565 in twenty eleven,

NOTE Confidence: 0.9825818

00:36:18.625 --> 00:36:20.705 more significantly, he developed a

NOTE Confidence: 0.9825818

00:36:20.705 --> 00:36:21.205 mild,

NOTE Confidence: 0.99151546

00:36:21.585 --> 00:36:22.085 macrocytic

NOTE Confidence: 0.8576134

00:36:22.545 --> 00:36:23.045 anemia,

NOTE Confidence: 0.91915953

00:36:24.225 --> 00:36:25.745 with a hemoglobin of thirteen

NOTE Confidence: 0.91915953

00:36:25.745 --> 00:36:27.750 point two, MCV of ninety

NOTE Confidence: 0.91915953

00:36:27.750 --> 00:36:28.810 eight. His SPEP

NOTE Confidence: 0.8928914

00:36:29.350 --> 00:36:30.550 at the time during the

NOTE Confidence: 0.8928914

00:36:30.550 --> 00:36:31.050 eval,

NOTE Confidence: 0.9850094

00:36:31.670 --> 00:36:33.290 showed a monoclonal band,

NOTE Confidence: 0.9710095

00:36:34.710 --> 00:36:36.710 consistent with IgM kappa at

NOTE Confidence: 0.9710095

00:36:36.710 --> 00:36:38.310 zero point eight milligrams per

NOTE Confidence: 0.9710095

00:36:38.310 --> 00:36:38.810 deciliter.

NOTE Confidence: 0.99032384

00:36:40.710 --> 00:36:41.850 Because the IgM

NOTE Confidence: 0.9996197

00:36:44.045 --> 00:36:44.545 monoclonal

NOTE Confidence: 0.91065764

00:36:44.844 --> 00:36:45.344 protein,

NOTE Confidence: 0.9434323

00:36:45.964 --> 00:36:46.844 he went on to bone

NOTE Confidence: 0.9434323

00:36:46.844 --> 00:36:48.525 marrow biopsy, which revealed a

NOTE Confidence: 0.9434323

00:36:48.525 --> 00:36:50.045 twenty to thirty percent low

NOTE Confidence: 0.9434323

00:36:50.045 --> 00:36:50.545 grade

NOTE Confidence: 0.89979726

00:36:50.924 --> 00:36:51.724 b cell,

NOTE Confidence: 0.99362737

00:36:52.045 --> 00:36:52.545 lymphoproliferative

NOTE Confidence: 0.57311213

00:36:54.364 --> 00:36:54.864 disorder

NOTE Confidence: 0.9560107

00:36:55.244 --> 00:36:56.864 with plasma cell differentiation,

NOTE Confidence: 0.91558707

00:36:57.640 --> 00:36:58.460 kappa restriction.

NOTE Confidence: 0.9715396

00:36:59.400 --> 00:36:59.900 And,

NOTE Confidence: 0.8882459

00:37:01.080 --> 00:37:02.219 we think about Waldenstroms

NOTE Confidence: 0.9631645

00:37:02.520 --> 00:37:03.340 with the IgM,

NOTE Confidence: 0.52990234

00:37:04.680 --> 00:37:05.180 chemotherapy.

NOTE Confidence: 0.98304725

00:37:06.280 --> 00:37:07.640 He didn't meet criteria for

NOTE Confidence: 0.98304725

00:37:07.640 --> 00:37:09.020 treatment at that time.

NOTE Confidence: 0.94031936

00:37:11.415 --> 00:37:13.255 So, he had his SPEP

NOTE Confidence: 0.94031936

00:37:13.255 --> 00:37:15.115 done every year. And

NOTE Confidence: 0.7784933

00:37:15.655 --> 00:37:16.635 it from

NOTE Confidence: 0.9743116

00:37:17.015 --> 00:37:18.795 twenty eleven through twenty nineteen,

NOTE Confidence: 0.9743116

00:37:18.855 --> 00:37:20.055 he was very stable at

NOTE Confidence: 0.9743116

00:37:20.055 --> 00:37:21.355 that zero point eight milligram

NOTE Confidence: 0.9743116

00:37:21.415 --> 00:37:22.075 per deciliter

NOTE Confidence: 0.5966123

00:37:22.935 --> 00:37:23.435 level.

NOTE Confidence: 0.99905175

00:37:24.830 --> 00:37:26.370 In twenty nineteen

NOTE Confidence: 0.9833167

00:37:26.750 --> 00:37:28.750 and twenty one, the level

NOTE Confidence: 0.9833167

00:37:28.750 --> 00:37:30.610 rose to one point zero.

NOTE Confidence: 0.98768026

00:37:31.070 --> 00:37:32.110 And then in twenty two,

NOTE Confidence: 0.98768026

00:37:32.110 --> 00:37:33.070 it went up again to

NOTE Confidence: 0.98768026

00:37:33.070 --> 00:37:34.510 one point four. And then

NOTE Confidence: 0.98768026

00:37:34.510 --> 00:37:35.969 in twenty twenty three,

NOTE Confidence: 0.99060965

00:37:36.270 --> 00:37:37.870 it rose to one point

NOTE Confidence: 0.99060965

00:37:37.870 --> 00:37:38.370 seven.

NOTE Confidence: 0.99842596

00:37:38.885 --> 00:37:39.464 His hemoglobin

NOTE Confidence: 0.99347913

00:37:39.844 --> 00:37:41.204 dropped from eleven to eight

NOTE Confidence: 0.99347913

00:37:41.204 --> 00:37:41.944 point four,

NOTE Confidence: 0.95511174

00:37:42.565 --> 00:37:44.585 and he does developing fatigue.

NOTE Confidence: 0.95511174

00:37:44.645 --> 00:37:46.405 So he's becoming symptomatic. He

NOTE Confidence: 0.95511174

00:37:46.405 --> 00:37:47.525 had no other causes for

NOTE Confidence: 0.95511174

00:37:47.525 --> 00:37:48.805 the anemia to explain the

NOTE Confidence: 0.95511174

00:37:48.805 --> 00:37:49.305 drop.

NOTE Confidence: 0.9015805

00:37:50.085 --> 00:37:50.724 His his,

NOTE Confidence: 0.96074516

00:37:51.380 --> 00:37:53.219 kappa light chain was three

NOTE Confidence: 0.96074516

00:37:53.219 --> 00:37:55.000 point eight, and his IgM

NOTE Confidence: 0.9695449

00:37:55.780 --> 00:37:57.700 antibodies were in the mid,

NOTE Confidence: 0.9695449

00:37:58.020 --> 00:37:59.940 two thousand six hundred twenty

NOTE Confidence: 0.9695449

00:37:59.940 --> 00:38:02.180 two. Excuse me. And at

NOTE Confidence: 0.9695449

00:38:02.180 --> 00:38:03.860 that point, decision was made

NOTE Confidence: 0.9695449

00:38:03.860 --> 00:38:05.160 to treat with rituximab,

NOTE Confidence: 0.97331357

00:38:06.135 --> 00:38:07.675 and we want to,

NOTE Confidence: 0.9694936

00:38:08.614 --> 00:38:09.975 pass over to doctor Barr

NOTE Confidence: 0.9694936

00:38:09.975 --> 00:38:10.875 to talk about

NOTE Confidence: 0.98133785

00:38:11.575 --> 00:38:13.275 IgM disease here.

NOTE Confidence: 0.9993745

00:38:14.375 --> 00:38:15.355 Yes. So

NOTE Confidence: 0.97016346

00:38:15.655 --> 00:38:16.855 you can see here that

NOTE Confidence: 0.97016346

00:38:16.855 --> 00:38:18.795 the spectrum of IgM gammopathies,

NOTE Confidence: 0.944953

00:38:19.680 --> 00:38:21.040 are very similar to the

NOTE Confidence: 0.944953

00:38:21.040 --> 00:38:22.640 IgG and IgAs where you

NOTE Confidence: 0.944953

00:38:22.640 --> 00:38:23.760 have the MGUS and you

NOTE Confidence: 0.944953

00:38:23.760 --> 00:38:25.380 have this middle stage of

NOTE Confidence: 0.944953

00:38:25.599 --> 00:38:26.099 asymptomatic

NOTE Confidence: 0.98848987

00:38:26.400 --> 00:38:27.140 or smoldering,

NOTE Confidence: 0.8856077

00:38:28.079 --> 00:38:28.579 Waldenstrom's

NOTE Confidence: 0.907299

00:38:28.880 --> 00:38:29.859 and then symptomatic

NOTE Confidence: 0.9869447

00:38:30.160 --> 00:38:30.660 Waldenstrom's

NOTE Confidence: 0.986005

00:38:31.280 --> 00:38:32.339 that needs therapy.

NOTE Confidence: 0.9998432

00:38:32.785 --> 00:38:33.685 So what defines

NOTE Confidence: 0.99082273

00:38:34.305 --> 00:38:35.205 needing therapy,

NOTE Confidence: 0.9363469

00:38:35.745 --> 00:38:37.665 is different in myeloma and

NOTE Confidence: 0.9363469

00:38:37.665 --> 00:38:39.285 the lymphoma. For example,

NOTE Confidence: 0.96924025

00:38:39.905 --> 00:38:41.425 for lymphomas, we look at

NOTE Confidence: 0.96924025

00:38:41.425 --> 00:38:42.805 b symptoms, like

NOTE Confidence: 0.9387025

00:38:43.185 --> 00:38:43.685 constitutional

NOTE Confidence: 0.89522743

00:38:43.985 --> 00:38:45.525 symptoms, weight law unexplained

NOTE Confidence: 0.9994718

00:38:45.825 --> 00:38:46.565 weight loss,

NOTE Confidence: 0.9988514

00:38:47.150 --> 00:38:49.170 fevers, night sweats, things like

NOTE Confidence: 0.9705023

00:38:49.870 --> 00:38:51.630 that, feeling just generally very

NOTE Confidence: 0.9705023

00:38:51.630 --> 00:38:52.130 poorly.

NOTE Confidence: 0.9990904

00:38:52.510 --> 00:38:53.570 We look at symptomatic

NOTE Confidence: 0.97213995

00:38:54.190 --> 00:38:56.210 cytopenias, which are mainly from

NOTE Confidence: 0.9897936

00:38:56.510 --> 00:38:58.770 crowding of, the bone marrow

NOTE Confidence: 0.9994931

00:38:59.225 --> 00:39:00.364 from the lymphoma

NOTE Confidence: 0.9201309

00:39:00.825 --> 00:39:01.885 or from hepatosplenomegaly,

NOTE Confidence: 0.9942563

00:39:02.505 --> 00:39:04.045 which can also cause cytopenias.

NOTE Confidence: 0.95831126

00:39:04.905 --> 00:39:05.965 Obviously, hyperviscosity

NOTE Confidence: 0.9273298

00:39:06.505 --> 00:39:07.864 is very concerning. It should

NOTE Confidence: 0.9273298

00:39:07.864 --> 00:39:09.085 be treated right away.

NOTE Confidence: 0.996916

00:39:10.585 --> 00:39:12.125 Also, if you have progressive

NOTE Confidence: 0.992071

00:39:12.690 --> 00:39:13.750 bulky lymphadenopathy,

NOTE Confidence: 0.92908

00:39:14.210 --> 00:39:15.650 that would be criteria for

NOTE Confidence: 0.92908

00:39:15.650 --> 00:39:16.150 treatment

NOTE Confidence: 0.5645033

00:39:16.450 --> 00:39:17.109 for glabalinemia

NOTE Confidence: 0.85575056

00:39:17.810 --> 00:39:18.310 called,

NOTE Confidence: 0.6637225

00:39:18.770 --> 00:39:19.670 agglutin disease

NOTE Confidence: 0.92499787

00:39:20.290 --> 00:39:21.829 and significant neuropathy.

NOTE Confidence: 0.959113

00:39:22.369 --> 00:39:24.050 It's important to to also

NOTE Confidence: 0.959113

00:39:24.050 --> 00:39:25.829 know that not all neuropathy

NOTE Confidence: 0.959113

00:39:25.969 --> 00:39:27.965 would warrant therapy. Sometimes people

NOTE Confidence: 0.959113

00:39:27.965 --> 00:39:29.105 have very mild,

NOTE Confidence: 0.9467677

00:39:30.205 --> 00:39:31.905 case and they're fully functional

NOTE Confidence: 0.9467677

00:39:32.045 --> 00:39:33.005 and we just kind of

NOTE Confidence: 0.9467677

00:39:33.005 --> 00:39:34.285 watch them because, again, you

NOTE Confidence: 0.9467677

00:39:34.285 --> 00:39:35.325 have to assess the risk

NOTE Confidence: 0.9467677

00:39:35.325 --> 00:39:37.245 and benefit. Waldenstrom is also

NOTE Confidence: 0.9467677

00:39:37.245 --> 00:39:38.685 not it it's not a

NOTE Confidence: 0.9467677

00:39:38.685 --> 00:39:39.165 curable,

NOTE Confidence: 0.9997282

00:39:39.565 --> 00:39:40.065 cancer.

NOTE Confidence: 0.9734962

00:39:41.670 --> 00:39:43.030 So when you assess someone

NOTE Confidence: 0.9734962

00:39:43.030 --> 00:39:44.250 with IgM gumopathy,

NOTE Confidence: 0.98847944

00:39:44.950 --> 00:39:46.790 your your questioning and what

NOTE Confidence: 0.98847944

00:39:46.790 --> 00:39:48.310 you're looking for is quite

NOTE Confidence: 0.98847944

00:39:48.310 --> 00:39:50.070 different from when you're assessing

NOTE Confidence: 0.98847944

00:39:50.070 --> 00:39:52.089 someone with non IgM gumopathy.

NOTE Confidence: 0.84936464

00:39:58.484 --> 00:39:58.984 Good.

NOTE Confidence: 0.90127563

00:40:00.805 --> 00:40:02.425 And then, you know, to

NOTE Confidence: 0.8876916

00:40:02.885 --> 00:40:03.704 to take,

NOTE Confidence: 0.94463533

00:40:04.885 --> 00:40:05.765 to move on from an

NOTE Confidence: 0.94463533

00:40:05.765 --> 00:40:06.265 IGM,

NOTE Confidence: 0.93750656

00:40:08.405 --> 00:40:08.905 discussion,

NOTE Confidence: 0.9719832

00:40:09.560 --> 00:40:11.320 We have, this next case,

NOTE Confidence: 0.9719832

00:40:11.320 --> 00:40:12.760 which was a fifty two

NOTE Confidence: 0.9719832

00:40:12.760 --> 00:40:14.700 year old gentleman from Ecuador,

NOTE Confidence: 0.9576979

00:40:16.840 --> 00:40:18.380 who's new to me,

NOTE Confidence: 0.96360403

00:40:19.080 --> 00:40:20.680 really this past December. But

NOTE Confidence: 0.96360403

00:40:20.680 --> 00:40:21.180 in

NOTE Confidence: 0.9380195

00:40:22.600 --> 00:40:23.980 June of twenty two

NOTE Confidence: 0.9995446

00:40:24.594 --> 00:40:25.415 twenty twenty

NOTE Confidence: 0.97143066

00:40:25.715 --> 00:40:27.235 two, he went to his

NOTE Confidence: 0.97143066

00:40:27.235 --> 00:40:29.315 PCP, had a urologic symptom,

NOTE Confidence: 0.97143066

00:40:29.315 --> 00:40:30.675 but on the side said,

NOTE Confidence: 0.97143066

00:40:30.675 --> 00:40:31.635 oh, by the way, my

NOTE Confidence: 0.97143066

00:40:31.635 --> 00:40:32.915 neck pain my neck hurts,

NOTE Confidence: 0.97143066

00:40:32.915 --> 00:40:34.295 you know, for last week.

NOTE Confidence: 0.9511657

00:40:34.675 --> 00:40:35.955 And I, you know, just

NOTE Confidence: 0.9511657

00:40:35.955 --> 00:40:37.315 changed my mattress. You know?

NOTE Confidence: 0.9511657

00:40:37.315 --> 00:40:38.215 What do I do?

NOTE Confidence: 0.9856816

00:40:38.719 --> 00:40:39.219 And,

NOTE Confidence: 0.5997861

00:40:39.920 --> 00:40:40.420 the,

NOTE Confidence: 0.9434595

00:40:41.039 --> 00:40:42.160 you know, looked in you

NOTE Confidence: 0.9434595

00:40:42.160 --> 00:40:44.000 know, looked into it, said

NOTE Confidence: 0.9434595

00:40:44.000 --> 00:40:45.520 no no red flags on

NOTE Confidence: 0.9434595

00:40:45.520 --> 00:40:46.819 discussion exam, etcetera.

NOTE Confidence: 0.85684395

00:40:47.279 --> 00:40:47.760 He,

NOTE Confidence: 0.96295625

00:40:48.319 --> 00:40:49.359 looked over his chart. He

NOTE Confidence: 0.96295625

00:40:49.359 --> 00:40:50.900 had no past medical history,

NOTE Confidence: 0.96295625

00:40:51.039 --> 00:40:51.779 no surgeries.

NOTE Confidence: 0.9433325

00:40:53.355 --> 00:40:54.635 Social wise, he was married

NOTE Confidence: 0.9433325

00:40:54.635 --> 00:40:56.635 with two kids, immigrated in,

NOTE Confidence: 0.9433325

00:40:56.875 --> 00:40:58.395 two thousand five, and he

NOTE Confidence: 0.9433325

00:40:58.395 --> 00:40:59.855 works as a graphic artist.

NOTE Confidence: 0.8183143

00:41:01.114 --> 00:41:01.614 So,

NOTE Confidence: 0.91302717

00:41:01.995 --> 00:41:03.375 you know, you know, conservative

NOTE Confidence: 0.91302717

00:41:03.435 --> 00:41:05.455 care was instructions were provided,

NOTE Confidence: 0.91302717

00:41:05.594 --> 00:41:07.035 and he was advised to

NOTE Confidence: 0.91302717

00:41:07.035 --> 00:41:08.070 come back to the clinic

NOTE Confidence: 0.91302717

00:41:08.070 --> 00:41:08.969 and and,

NOTE Confidence: 0.9582188

00:41:09.750 --> 00:41:10.969 if if things improve.

NOTE Confidence: 0.9988723

00:41:12.150 --> 00:41:13.370 But four weeks later

NOTE Confidence: 0.8281833

00:41:13.830 --> 00:41:14.570 in July,

NOTE Confidence: 0.98155874

00:41:15.510 --> 00:41:16.790 he went to the emergency

NOTE Confidence: 0.98155874

00:41:16.790 --> 00:41:18.469 room at Bridgeport Hospital with

NOTE Confidence: 0.98155874

00:41:18.469 --> 00:41:19.850 worsening neck pain

NOTE Confidence: 0.9482502

00:41:20.150 --> 00:41:21.030 and right,

NOTE Confidence: 0.99962705

00:41:21.510 --> 00:41:22.570 ear numbness

NOTE Confidence: 0.999733

00:41:23.405 --> 00:41:24.705 and right arm pain.

NOTE Confidence: 0.96046066

00:41:25.885 --> 00:41:27.405 He had a subjective fever.

NOTE Confidence: 0.96046066

00:41:27.405 --> 00:41:28.445 He had cough. He had

NOTE Confidence: 0.96046066

00:41:28.445 --> 00:41:30.045 congestion. So he was tested

NOTE Confidence: 0.96046066

00:41:30.045 --> 00:41:31.565 for COVID. He was positive.

NOTE Confidence: 0.96046066

00:41:31.565 --> 00:41:32.464 He was discharged

NOTE Confidence: 0.9877606

00:41:33.005 --> 00:41:33.744 with molnupiravir

NOTE Confidence: 0.9713002

00:41:34.364 --> 00:41:36.065 and, PCP follow-up.

NOTE Confidence: 0.972169

00:41:36.605 --> 00:41:37.930 The next day, he had

NOTE Confidence: 0.972169

00:41:37.930 --> 00:41:39.450 a phone call, video visit

NOTE Confidence: 0.972169

00:41:39.450 --> 00:41:41.070 with his primary care doc,

NOTE Confidence: 0.94643813

00:41:41.530 --> 00:41:43.070 mentioned the neck pain again.

NOTE Confidence: 0.94643813

00:41:43.130 --> 00:41:44.830 She ordered an X-ray,

NOTE Confidence: 0.970037

00:41:45.850 --> 00:41:47.050 but the patient didn't get

NOTE Confidence: 0.970037

00:41:47.050 --> 00:41:48.910 it done for whatever reason.

NOTE Confidence: 0.9801669

00:41:49.290 --> 00:41:49.790 And,

NOTE Confidence: 0.9562404

00:41:50.650 --> 00:41:51.714 he went back to his

NOTE Confidence: 0.9562404

00:41:51.714 --> 00:41:53.155 primary care doc saying, hey.

NOTE Confidence: 0.9562404

00:41:53.155 --> 00:41:54.195 I have this neck pain.

NOTE Confidence: 0.9562404

00:41:54.195 --> 00:41:55.175 It's still here.

NOTE Confidence: 0.9322308

00:41:55.635 --> 00:41:56.675 And I think she said,

NOTE Confidence: 0.9322308

00:41:56.675 --> 00:41:57.714 well, where's the X-ray? He

NOTE Confidence: 0.9322308

00:41:57.714 --> 00:41:58.515 said I didn't get it

NOTE Confidence: 0.9322308

00:41:58.515 --> 00:42:00.195 done. So he and then

NOTE Confidence: 0.9322308

00:42:00.195 --> 00:42:01.234 he went and got it

NOTE Confidence: 0.9322308

00:42:01.234 --> 00:42:02.835 done. And he had a

NOTE Confidence: 0.9322308

00:42:02.835 --> 00:42:04.535 c three h, indeterminate,

NOTE Confidence: 0.95633256

00:42:04.915 --> 00:42:06.535 you know, compression fracture,

NOTE Confidence: 0.9711281

00:42:08.730 --> 00:42:10.270 and an MRI was ordered,

NOTE Confidence: 0.9766864

00:42:10.650 --> 00:42:12.570 for follow-up. And, two weeks

NOTE Confidence: 0.9766864

00:42:12.570 --> 00:42:14.010 later, he got that done.

NOTE Confidence: 0.9766864

00:42:14.010 --> 00:42:14.510 And,

NOTE Confidence: 0.9814962

00:42:15.210 --> 00:42:16.330 you see here at the

NOTE Confidence: 0.9814962

00:42:16.330 --> 00:42:17.390 c three level,

NOTE Confidence: 0.959565

00:42:18.090 --> 00:42:19.770 under the red circle, he's

NOTE Confidence: 0.959565

00:42:19.770 --> 00:42:20.590 got a

NOTE Confidence: 0.9942938

00:42:21.265 --> 00:42:22.484 pathologic fracture.

NOTE Confidence: 0.9872383

00:42:22.785 --> 00:42:24.645 It's a burst fracture. It's,

NOTE Confidence: 0.9651003

00:42:25.185 --> 00:42:26.785 you know, moving posteriorly and

NOTE Confidence: 0.9651003

00:42:26.785 --> 00:42:28.005 then pinching the cervical

NOTE Confidence: 0.92266506

00:42:28.785 --> 00:42:29.685 spinal cord.

NOTE Confidence: 0.69751334

00:42:31.744 --> 00:42:32.244 Yeah.

NOTE Confidence: 0.9781718

00:42:32.545 --> 00:42:34.469 He had multiple lesions throughout

NOTE Confidence: 0.9781718

00:42:34.469 --> 00:42:35.130 his vertebrae,

NOTE Confidence: 0.9538086

00:42:35.750 --> 00:42:37.050 a rib and a humeral

NOTE Confidence: 0.9538086

00:42:37.110 --> 00:42:38.869 head, and, no other signs

NOTE Confidence: 0.9538086

00:42:38.869 --> 00:42:40.489 of a of a alternative,

NOTE Confidence: 0.9930794

00:42:41.190 --> 00:42:42.890 you know, cancer identified.

NOTE Confidence: 0.9921521

00:42:43.510 --> 00:42:44.730 And then he had,

NOTE Confidence: 0.9858501

00:42:45.350 --> 00:42:45.930 he had

NOTE Confidence: 0.9581549

00:42:46.310 --> 00:42:47.350 a mild you know, he

NOTE Confidence: 0.9581549

00:42:47.350 --> 00:42:49.110 had anemia, normalcytic anemia of

NOTE Confidence: 0.9581549

00:42:49.110 --> 00:42:50.864 twelve point eight, normal calcium,

NOTE Confidence: 0.9581549

00:42:50.925 --> 00:42:51.665 normal creatinine.

NOTE Confidence: 0.8519264

00:42:52.525 --> 00:42:53.965 He had a, he had

NOTE Confidence: 0.8519264

00:42:53.965 --> 00:42:55.965 a identifiable monoclonal protein on

NOTE Confidence: 0.8519264

00:42:55.965 --> 00:42:56.925 the s PEP that was

NOTE Confidence: 0.8519264

00:42:56.925 --> 00:42:58.465 IgG kappa on immunofixation,

NOTE Confidence: 0.9240193

00:42:59.565 --> 00:43:02.125 elevated kappa light chain, elevated

NOTE Confidence: 0.9240193

00:43:02.125 --> 00:43:03.425 kappa light chain ratio.

NOTE Confidence: 0.90812814

00:43:03.960 --> 00:43:05.000 One six eight, he had

NOTE Confidence: 0.90812814

00:43:05.000 --> 00:43:06.460 elevated IgG immunoglobulins,

NOTE Confidence: 0.93351704

00:43:07.480 --> 00:43:08.839 and he had some pain

NOTE Confidence: 0.93351704

00:43:08.839 --> 00:43:10.140 proteins on the urine,

NOTE Confidence: 0.9959524

00:43:10.920 --> 00:43:11.420 electrophoresis.

NOTE Confidence: 0.923504

00:43:12.440 --> 00:43:12.839 But,

NOTE Confidence: 0.95884824

00:43:13.719 --> 00:43:15.480 clinical course, he went through

NOTE Confidence: 0.95884824

00:43:15.480 --> 00:43:16.619 a c three corpectomy

NOTE Confidence: 0.9448575

00:43:17.400 --> 00:43:17.900 and,

NOTE Confidence: 0.9192874

00:43:18.359 --> 00:43:19.820 with an interview vertebral,

NOTE Confidence: 0.88610774

00:43:20.335 --> 00:43:21.155 device placement.

NOTE Confidence: 0.9229574

00:43:21.855 --> 00:43:22.815 Well, you know, a few

NOTE Confidence: 0.9229574

00:43:22.815 --> 00:43:24.815 days later by posterior cervical

NOTE Confidence: 0.9229574

00:43:24.815 --> 00:43:25.315 fixation,

NOTE Confidence: 0.85929954

00:43:26.655 --> 00:43:27.135 tissue,

NOTE Confidence: 0.9475543

00:43:27.535 --> 00:43:29.295 pathology from the burst fracture

NOTE Confidence: 0.9475543

00:43:29.295 --> 00:43:31.075 showed sheets of plasma cells,

NOTE Confidence: 0.8872246

00:43:31.455 --> 00:43:32.495 you know, CD one thirty

NOTE Confidence: 0.8872246

00:43:32.495 --> 00:43:33.855 eight, you know, capilloid chain

NOTE Confidence: 0.8872246

00:43:33.855 --> 00:43:34.355 restriction.

NOTE Confidence: 0.9798291

00:43:36.119 --> 00:43:36.859 And then

NOTE Confidence: 0.88892114

00:43:37.160 --> 00:43:38.440 few days later, had his

NOTE Confidence: 0.88892114

00:43:38.440 --> 00:43:39.079 bone marrow,

NOTE Confidence: 0.96321493

00:43:39.480 --> 00:43:41.640 biopsy done and, twenty percent

NOTE Confidence: 0.96321493

00:43:41.640 --> 00:43:42.140 kappa,

NOTE Confidence: 0.94670016

00:43:42.759 --> 00:43:43.980 plasma cells identified.

NOTE Confidence: 0.970786

00:43:44.839 --> 00:43:46.539 And back to doctor Barr.

NOTE Confidence: 0.94686085

00:43:49.415 --> 00:43:50.455 Sorry. I was so excited

NOTE Confidence: 0.94686085

00:43:50.455 --> 00:43:51.735 to talk about myeloma that

NOTE Confidence: 0.94686085

00:43:51.735 --> 00:43:53.114 I speeded ahead.

NOTE Confidence: 0.92930037

00:43:53.895 --> 00:43:55.415 So so this patient does

NOTE Confidence: 0.92930037

00:43:55.415 --> 00:43:57.015 have a diagnosis of multiple

NOTE Confidence: 0.92930037

00:43:57.015 --> 00:43:57.975 myeloma. He has,

NOTE Confidence: 0.92236656

00:43:58.695 --> 00:44:00.455 definitely bony lesions. It has

NOTE Confidence: 0.92236656

00:44:00.455 --> 00:44:01.735 some anemia. And, actually, in

NOTE Confidence: 0.92236656

00:44:01.735 --> 00:44:02.875 fact, the most common

NOTE Confidence: 0.8708662

00:44:03.210 --> 00:44:05.210 presenting, CRB criteria is bony

NOTE Confidence: 0.8708662

00:44:05.210 --> 00:44:06.190 lesions and anemia.

NOTE Confidence: 0.975446

00:44:06.730 --> 00:44:08.410 I think the key features

NOTE Confidence: 0.975446

00:44:08.410 --> 00:44:09.849 here is this kind of

NOTE Confidence: 0.975446

00:44:09.849 --> 00:44:12.410 persistent progressive bony pains that

NOTE Confidence: 0.975446

00:44:12.410 --> 00:44:14.430 in a young patient, someone

NOTE Confidence: 0.975446

00:44:14.650 --> 00:44:15.849 might not think is is

NOTE Confidence: 0.975446

00:44:15.849 --> 00:44:16.215 that,

NOTE Confidence: 0.9670511

00:44:16.695 --> 00:44:18.535 you know, concerning, especially we

NOTE Confidence: 0.9670511

00:44:18.535 --> 00:44:19.415 see a lot of patients

NOTE Confidence: 0.9670511

00:44:19.415 --> 00:44:20.935 who are shoveling snow and

NOTE Confidence: 0.9670511

00:44:20.935 --> 00:44:21.975 have some back pain, but

NOTE Confidence: 0.9670511

00:44:21.975 --> 00:44:23.335 that does not go away.

NOTE Confidence: 0.9670511

00:44:23.335 --> 00:44:24.475 You know? So it's like

NOTE Confidence: 0.9683598

00:44:24.775 --> 00:44:26.375 something that continues, something that

NOTE Confidence: 0.9683598

00:44:26.375 --> 00:44:27.895 needs to be evaluated for

NOTE Confidence: 0.9683598

00:44:27.895 --> 00:44:29.355 sure with more, imaging.

NOTE Confidence: 0.9860038

00:44:30.050 --> 00:44:31.890 So myeloma is not curable,

NOTE Confidence: 0.9860038

00:44:31.890 --> 00:44:33.270 and, of course, that's devastating

NOTE Confidence: 0.9860038

00:44:33.410 --> 00:44:34.070 for patients,

NOTE Confidence: 0.9926589

00:44:34.530 --> 00:44:35.190 to hear.

NOTE Confidence: 0.9839311

00:44:36.450 --> 00:44:37.730 And as I show you

NOTE Confidence: 0.9839311

00:44:37.730 --> 00:44:39.670 here, it's categorized by multiple

NOTE Confidence: 0.9839311

00:44:39.730 --> 00:44:40.230 relapses.

NOTE Confidence: 0.99961114

00:44:40.930 --> 00:44:41.590 The first

NOTE Confidence: 0.9844238

00:44:42.844 --> 00:44:43.344 remission

NOTE Confidence: 0.8520949

00:44:43.645 --> 00:44:45.585 or response to therapy

NOTE Confidence: 0.9500332

00:44:45.964 --> 00:44:47.505 is often the longest one.

NOTE Confidence: 0.9812915

00:44:47.805 --> 00:44:49.505 And you don't really have,

NOTE Confidence: 0.9612172

00:44:49.885 --> 00:44:51.984 numbers here, but on average,

NOTE Confidence: 0.9612172

00:44:52.045 --> 00:44:52.785 these patients

NOTE Confidence: 0.9518996

00:44:53.244 --> 00:44:54.605 have a first duration of

NOTE Confidence: 0.9518996

00:44:54.605 --> 00:44:56.385 response of about five years.

NOTE Confidence: 0.9518996

00:44:56.444 --> 00:44:57.900 So it's quite good.

NOTE Confidence: 0.98232806

00:44:58.600 --> 00:44:59.880 And then once they relapse,

NOTE Confidence: 0.98232806

00:44:59.880 --> 00:45:01.239 they get another therapy, and

NOTE Confidence: 0.98232806

00:45:01.239 --> 00:45:02.920 then each with each relapse,

NOTE Confidence: 0.98232806

00:45:02.920 --> 00:45:03.660 it shortens.

NOTE Confidence: 0.9891733

00:45:04.280 --> 00:45:04.920 We do,

NOTE Confidence: 0.9243378

00:45:05.400 --> 00:45:06.920 kind of classify as early

NOTE Confidence: 0.9243378

00:45:06.920 --> 00:45:08.760 relapse and late relapse mainly

NOTE Confidence: 0.9243378

00:45:08.760 --> 00:45:10.214 for kind of treatments

NOTE Confidence: 0.98405594

00:45:10.535 --> 00:45:12.394 different treatments that are approved

NOTE Confidence: 0.98405594

00:45:12.454 --> 00:45:14.075 for these particular situations,

NOTE Confidence: 0.8766614

00:45:15.575 --> 00:45:16.954 and a little bit relevant

NOTE Confidence: 0.9938719

00:45:17.255 --> 00:45:18.375 for a few slides from

NOTE Confidence: 0.9938719

00:45:18.375 --> 00:45:19.815 now. So in terms of

NOTE Confidence: 0.9938719

00:45:19.815 --> 00:45:20.315 epidemiology,

NOTE Confidence: 0.98102903

00:45:20.614 --> 00:45:21.734 it's definitely not the most

NOTE Confidence: 0.98102903

00:45:21.734 --> 00:45:23.815 common cancer, so fourteenth most

NOTE Confidence: 0.98102903

00:45:23.815 --> 00:45:24.714 common cancer.

NOTE Confidence: 0.9716225

00:45:25.590 --> 00:45:26.870 It's usually seen in the

NOTE Confidence: 0.9716225

00:45:26.870 --> 00:45:28.630 elderly, median age of sixty

NOTE Confidence: 0.9716225

00:45:28.630 --> 00:45:29.130 nine,

NOTE Confidence: 0.94743115

00:45:29.590 --> 00:45:31.130 more commonly seen in individual

NOTE Confidence: 0.94743115

00:45:31.190 --> 00:45:32.570 of African American descent.

NOTE Confidence: 0.9672474

00:45:33.270 --> 00:45:34.790 The median survival, I can

NOTE Confidence: 0.9672474

00:45:34.790 --> 00:45:36.250 see here in the,

NOTE Confidence: 0.9995542

00:45:36.790 --> 00:45:37.290 green

NOTE Confidence: 0.9627027

00:45:38.555 --> 00:45:39.935 graph here, has

NOTE Confidence: 0.99997413

00:45:40.235 --> 00:45:40.735 steadily

NOTE Confidence: 0.998558

00:45:41.515 --> 00:45:42.015 improved

NOTE Confidence: 0.99654484

00:45:42.475 --> 00:45:43.935 for the last two decades.

NOTE Confidence: 0.99654484

00:45:44.155 --> 00:45:44.655 Okay?

NOTE Confidence: 0.95677096

00:45:45.755 --> 00:45:47.035 And it it it does

NOTE Confidence: 0.95677096

00:45:47.035 --> 00:45:49.035 depend on risk. And right

NOTE Confidence: 0.95677096

00:45:49.035 --> 00:45:50.255 now, we're looking here,

NOTE Confidence: 0.8510101

00:45:50.840 --> 00:45:51.640 or we don't we don't

NOTE Confidence: 0.8510101

00:45:51.640 --> 00:45:53.880 actually have twenty twenty five

NOTE Confidence: 0.8510101

00:45:53.880 --> 00:45:55.980 with the most recent evaluation

NOTE Confidence: 0.8510101

00:45:56.120 --> 00:45:57.340 from the SEER database

NOTE Confidence: 0.88116914

00:45:57.719 --> 00:45:59.100 is twenty twenty one,

NOTE Confidence: 0.98738766

00:45:59.640 --> 00:46:00.840 showing you that at five

NOTE Confidence: 0.98738766

00:46:00.840 --> 00:46:02.360 years, if you were diagnosed

NOTE Confidence: 0.98738766

00:46:02.360 --> 00:46:03.560 in twenty twenty one, the

NOTE Confidence: 0.98738766

00:46:03.560 --> 00:46:04.060 chance

NOTE Confidence: 0.9703067

00:46:04.360 --> 00:46:05.719 of being alive at five

NOTE Confidence: 0.9703067

00:46:05.719 --> 00:46:07.135 years is sixty two percent.

NOTE Confidence: 0.9703067

00:46:07.135 --> 00:46:07.935 But I can tell you

NOTE Confidence: 0.9703067

00:46:07.935 --> 00:46:09.614 this is very much an

NOTE Confidence: 0.9703067

00:46:09.614 --> 00:46:10.114 underrepresentation

NOTE Confidence: 0.9782482

00:46:11.295 --> 00:46:12.655 of our survival in our

NOTE Confidence: 0.9782482

00:46:12.655 --> 00:46:13.155 patients,

NOTE Confidence: 0.99633044

00:46:13.455 --> 00:46:14.735 and this is probably more

NOTE Confidence: 0.99633044

00:46:14.735 --> 00:46:16.255 close to seventy five to

NOTE Confidence: 0.99633044

00:46:16.255 --> 00:46:17.075 eighty percent.

NOTE Confidence: 0.99910647

00:46:18.495 --> 00:46:19.635 High risk patients

NOTE Confidence: 0.9853432

00:46:20.489 --> 00:46:20.989 probably,

NOTE Confidence: 0.9890452

00:46:21.850 --> 00:46:23.130 do die within the first

NOTE Confidence: 0.9890452

00:46:23.130 --> 00:46:24.410 five years, but if you're

NOTE Confidence: 0.9890452

00:46:24.410 --> 00:46:25.450 not high risk, you do

NOTE Confidence: 0.9890452

00:46:25.450 --> 00:46:26.810 have that benefit of of

NOTE Confidence: 0.9890452

00:46:26.810 --> 00:46:28.350 longer duration of survival.

NOTE Confidence: 0.9994081

00:46:29.610 --> 00:46:31.550 Majority of the reason why

NOTE Confidence: 0.9994081

00:46:31.610 --> 00:46:33.150 our patients are living longer

NOTE Confidence: 0.9994081

00:46:33.290 --> 00:46:34.830 is because of new therapies.

NOTE Confidence: 0.94288844

00:46:36.114 --> 00:46:37.635 So the initial therapy for

NOTE Confidence: 0.94288844

00:46:37.635 --> 00:46:38.135 myeloma,

NOTE Confidence: 0.98589534

00:46:39.155 --> 00:46:41.235 can be quite cumbersome. So

NOTE Confidence: 0.98589534

00:46:41.235 --> 00:46:43.415 it actually involves three different

NOTE Confidence: 0.98589534

00:46:43.475 --> 00:46:45.095 parts. The first is induction.

NOTE Confidence: 0.98589534

00:46:45.395 --> 00:46:47.015 We use several drugs together.

NOTE Confidence: 0.95234907

00:46:47.715 --> 00:46:48.775 And after you get

NOTE Confidence: 0.9557765

00:46:49.650 --> 00:46:50.930 here, you see burden of

NOTE Confidence: 0.9557765

00:46:50.930 --> 00:46:51.430 disease,

NOTE Confidence: 0.9971866

00:46:52.609 --> 00:46:54.130 and then it goes down

NOTE Confidence: 0.9971866

00:46:54.130 --> 00:46:54.869 with induction.

NOTE Confidence: 0.9729434

00:46:55.329 --> 00:46:56.849 Some patients get a high

NOTE Confidence: 0.9729434

00:46:56.849 --> 00:46:58.849 dose chemotherapy and stem cell

NOTE Confidence: 0.9729434

00:46:58.849 --> 00:47:00.469 transplant if they're eligible,

NOTE Confidence: 0.9842211

00:47:01.089 --> 00:47:02.609 and then everyone goes on

NOTE Confidence: 0.9842211

00:47:02.609 --> 00:47:04.194 to getting maintenance. And we

NOTE Confidence: 0.9842211

00:47:04.194 --> 00:47:05.895 continue therapy for myeloma

NOTE Confidence: 0.96996415

00:47:06.515 --> 00:47:07.015 ongoing

NOTE Confidence: 0.92883235

00:47:07.315 --> 00:47:09.075 forever, which now as patients

NOTE Confidence: 0.92883235

00:47:09.075 --> 00:47:10.055 are living longer,

NOTE Confidence: 0.9351023

00:47:10.355 --> 00:47:12.275 is creating more problems. And

NOTE Confidence: 0.9351023

00:47:12.275 --> 00:47:13.315 we're trying to,

NOTE Confidence: 0.9242104

00:47:14.355 --> 00:47:15.395 figure this out who we

NOTE Confidence: 0.9242104

00:47:15.395 --> 00:47:16.375 can stop therapy,

NOTE Confidence: 0.9967793

00:47:17.395 --> 00:47:17.895 for.

NOTE Confidence: 0.9997052

00:47:18.770 --> 00:47:19.989 We know that achieving

NOTE Confidence: 0.99830145

00:47:20.450 --> 00:47:21.349 deep responses

NOTE Confidence: 0.94857025

00:47:22.450 --> 00:47:23.270 as we can

NOTE Confidence: 0.9221967

00:47:23.570 --> 00:47:25.670 measure by minimal residual disease

NOTE Confidence: 0.9221967

00:47:25.890 --> 00:47:26.390 negativity

NOTE Confidence: 0.85090435

00:47:28.450 --> 00:47:31.190 achieves good duration response and

NOTE Confidence: 0.8677885

00:47:31.635 --> 00:47:33.175 overall outcomes of survival.

NOTE Confidence: 0.98083866

00:47:33.635 --> 00:47:35.255 And with our newer therapies

NOTE Confidence: 0.98083866

00:47:35.315 --> 00:47:37.015 that we're using in induction

NOTE Confidence: 0.95894307

00:47:37.715 --> 00:47:39.155 and even in maintenance, we're

NOTE Confidence: 0.95894307

00:47:39.155 --> 00:47:40.755 achieving higher rates of MRG

NOTE Confidence: 0.95894307

00:47:40.755 --> 00:47:42.295 negativity, and this is why

NOTE Confidence: 0.95894307

00:47:42.435 --> 00:47:44.055 our our patients are overall

NOTE Confidence: 0.95894307

00:47:44.195 --> 00:47:45.575 doing much better.

NOTE Confidence: 0.9886436

00:47:46.460 --> 00:47:48.140 However, unfortunately, again, it is

NOTE Confidence: 0.9886436

00:47:48.140 --> 00:47:50.059 not curable, so patients do

NOTE Confidence: 0.9886436

00:47:50.059 --> 00:47:50.559 progress.

NOTE Confidence: 0.95236987

00:47:51.260 --> 00:47:53.339 And patients who progress several

NOTE Confidence: 0.95236987

00:47:53.339 --> 00:47:53.839 times

NOTE Confidence: 0.7280697

00:47:54.539 --> 00:47:55.039 historically

NOTE Confidence: 0.96889013

00:47:56.059 --> 00:47:58.380 have horrible prognosis, and this

NOTE Confidence: 0.96889013

00:47:58.380 --> 00:47:59.119 is historically

NOTE Confidence: 0.9974191

00:47:59.735 --> 00:48:01.355 four years ago. Okay?

NOTE Confidence: 0.98052347

00:48:01.975 --> 00:48:03.415 This is showing you patients

NOTE Confidence: 0.98052347

00:48:03.415 --> 00:48:05.175 who have had three late

NOTE Confidence: 0.98052347

00:48:05.175 --> 00:48:05.675 relapses.

NOTE Confidence: 0.99983966

00:48:06.375 --> 00:48:07.594 The chance of them

NOTE Confidence: 0.9696924

00:48:08.455 --> 00:48:09.895 responding to the next line

NOTE Confidence: 0.9696924

00:48:09.895 --> 00:48:10.635 of therapy

NOTE Confidence: 0.9869402

00:48:10.935 --> 00:48:12.635 is only thirty percent.

NOTE Confidence: 0.99204475

00:48:13.070 --> 00:48:14.190 And even if they do

NOTE Confidence: 0.99204475

00:48:14.190 --> 00:48:15.810 respond, they tend to progress

NOTE Confidence: 0.99204475

00:48:15.950 --> 00:48:18.369 with within several months, usually

NOTE Confidence: 0.94002974

00:48:18.670 --> 00:48:19.890 less than six months,

NOTE Confidence: 0.99002826

00:48:20.190 --> 00:48:22.270 and they often die within

NOTE Confidence: 0.99002826

00:48:22.270 --> 00:48:22.930 a year.

NOTE Confidence: 0.9975624

00:48:24.110 --> 00:48:25.230 What do we have today?

NOTE Confidence: 0.9975624

00:48:25.230 --> 00:48:26.450 This is quite different.

NOTE Confidence: 0.98798025

00:48:27.435 --> 00:48:28.395 We are now in the

NOTE Confidence: 0.98798025

00:48:28.395 --> 00:48:29.935 era of T cell redirection

NOTE Confidence: 0.98798025

00:48:30.075 --> 00:48:31.355 therapies, which is a type

NOTE Confidence: 0.98798025

00:48:31.355 --> 00:48:32.094 of immunotherapy

NOTE Confidence: 0.9990453

00:48:32.955 --> 00:48:33.455 that

NOTE Confidence: 0.9397976

00:48:34.075 --> 00:48:35.515 engages the T cells or

NOTE Confidence: 0.9397976

00:48:35.515 --> 00:48:36.735 uses T cells

NOTE Confidence: 0.9995069

00:48:37.195 --> 00:48:38.255 to identify

NOTE Confidence: 0.91566366

00:48:38.875 --> 00:48:40.175 the cancer, myeloma,

NOTE Confidence: 0.99422526

00:48:40.635 --> 00:48:41.535 through an antigen,

NOTE Confidence: 0.9428156

00:48:42.020 --> 00:48:42.920 which is a cell,

NOTE Confidence: 0.95134246

00:48:43.460 --> 00:48:44.500 a marker on the cell

NOTE Confidence: 0.95134246

00:48:44.500 --> 00:48:45.960 surface of the myeloma,

NOTE Confidence: 0.99603534

00:48:46.660 --> 00:48:47.719 identifies it,

NOTE Confidence: 0.9968002

00:48:48.339 --> 00:48:49.880 attacks it, kills it.

NOTE Confidence: 0.9708339

00:48:50.180 --> 00:48:51.780 So this is done through

NOTE Confidence: 0.9708339

00:48:51.780 --> 00:48:53.780 two different ways. One is

NOTE Confidence: 0.9708339

00:48:53.780 --> 00:48:54.839 called a bispecific

NOTE Confidence: 0.86350036

00:48:55.380 --> 00:48:56.440 T cell engager,

NOTE Confidence: 0.95112985

00:48:56.925 --> 00:48:58.364 which is basically an antibody,

NOTE Confidence: 0.95112985

00:48:58.364 --> 00:48:59.245 as you can see, shaped

NOTE Confidence: 0.95112985

00:48:59.245 --> 00:49:00.065 like a myeloma,

NOTE Confidence: 0.9738915

00:49:01.965 --> 00:49:03.025 monoclonal protein,

NOTE Confidence: 0.97937125

00:49:03.405 --> 00:49:04.785 which one of the arms

NOTE Confidence: 0.97937125

00:49:04.925 --> 00:49:06.125 binds to the T cell

NOTE Confidence: 0.97937125

00:49:06.125 --> 00:49:07.245 and the other one binds

NOTE Confidence: 0.97937125

00:49:07.245 --> 00:49:08.545 to the myeloma cell.

NOTE Confidence: 0.98902714

00:49:09.469 --> 00:49:11.150 The other T cell redirection

NOTE Confidence: 0.98902714

00:49:11.150 --> 00:49:12.349 therapy is a CAR T

NOTE Confidence: 0.98902714

00:49:12.349 --> 00:49:14.030 cell, which is basically a

NOTE Confidence: 0.98902714

00:49:14.030 --> 00:49:15.410 T cell that's engineered

NOTE Confidence: 0.99942136

00:49:16.430 --> 00:49:16.930 to

NOTE Confidence: 0.9870452

00:49:17.309 --> 00:49:19.170 have a receptor that recognizes

NOTE Confidence: 0.9870452

00:49:19.390 --> 00:49:20.670 the myeloma and kills it.

NOTE Confidence: 0.9870452

00:49:20.670 --> 00:49:21.469 And the T cells are

NOTE Confidence: 0.9870452

00:49:21.469 --> 00:49:22.829 kind of superstar T cells

NOTE Confidence: 0.9870452

00:49:22.829 --> 00:49:23.730 because they have

NOTE Confidence: 0.8250132

00:49:25.395 --> 00:49:25.895 costimulatory

NOTE Confidence: 0.99884206

00:49:26.275 --> 00:49:28.375 molecules once they get stimulated.

NOTE Confidence: 0.9954756

00:49:30.355 --> 00:49:31.475 So why are we so

NOTE Confidence: 0.9954756

00:49:31.475 --> 00:49:32.915 excited about these t cell

NOTE Confidence: 0.9954756

00:49:32.915 --> 00:49:35.175 redirection therapies? Again, historically,

NOTE Confidence: 0.9997865

00:49:35.875 --> 00:49:36.695 these patients

NOTE Confidence: 0.97184324

00:49:37.219 --> 00:49:39.059 who received these therapies on

NOTE Confidence: 0.97184324

00:49:39.059 --> 00:49:40.500 clinical trials would have had

NOTE Confidence: 0.97184324

00:49:40.500 --> 00:49:41.700 a thirty percent chance of

NOTE Confidence: 0.97184324

00:49:41.700 --> 00:49:43.059 response. And indeed, a lot

NOTE Confidence: 0.97184324

00:49:43.059 --> 00:49:44.099 of the treatments we use

NOTE Confidence: 0.97184324

00:49:44.099 --> 00:49:45.940 now upfront, they got approved

NOTE Confidence: 0.97184324

00:49:45.940 --> 00:49:47.219 by the FDA because of

NOTE Confidence: 0.97184324

00:49:47.219 --> 00:49:48.660 a thirty percent response rate,

NOTE Confidence: 0.97184324

00:49:48.660 --> 00:49:49.779 and we were excited about

NOTE Confidence: 0.97184324

00:49:49.779 --> 00:49:50.279 that.

NOTE Confidence: 0.96380603

00:49:50.875 --> 00:49:52.555 And, again, these patients who've

NOTE Confidence: 0.96380603

00:49:52.555 --> 00:49:53.695 progressed three times,

NOTE Confidence: 0.9603104

00:49:54.395 --> 00:49:55.995 they usually, even if they

NOTE Confidence: 0.9603104

00:49:55.995 --> 00:49:56.495 respond,

NOTE Confidence: 0.98518115

00:49:56.875 --> 00:49:58.495 progress within a few months.

NOTE Confidence: 0.9884454

00:49:58.955 --> 00:49:59.995 So this is a busy

NOTE Confidence: 0.9884454

00:49:59.995 --> 00:50:00.795 slide, but I want you

NOTE Confidence: 0.9884454

00:50:00.795 --> 00:50:02.075 to focus on two things.

NOTE Confidence: 0.9884454

00:50:02.075 --> 00:50:03.675 The first is in the

NOTE Confidence: 0.9884454

00:50:03.675 --> 00:50:05.355 orange box, the percent of

NOTE Confidence: 0.9884454

00:50:05.355 --> 00:50:06.980 page patients responding.

NOTE Confidence: 0.99255073

00:50:08.160 --> 00:50:09.680 First, I show you here

NOTE Confidence: 0.99255073

00:50:09.680 --> 00:50:11.380 three different types of bispecific

NOTE Confidence: 0.8380375

00:50:11.760 --> 00:50:12.660 T cell engagers,

NOTE Confidence: 0.95830524

00:50:13.040 --> 00:50:14.320 and in the second box

NOTE Confidence: 0.95830524

00:50:14.320 --> 00:50:15.520 is the two types of

NOTE Confidence: 0.95830524

00:50:15.520 --> 00:50:17.619 CAR T cell therapy products.

NOTE Confidence: 0.97246194

00:50:18.160 --> 00:50:18.960 And you can see on

NOTE Confidence: 0.97246194

00:50:18.960 --> 00:50:20.180 the bottom in gray,

NOTE Confidence: 0.9969404

00:50:20.664 --> 00:50:22.285 the chance of patients responding

NOTE Confidence: 0.9969404

00:50:22.344 --> 00:50:23.565 is more than double

NOTE Confidence: 0.92941284

00:50:24.105 --> 00:50:25.464 in the bispecific t cell

NOTE Confidence: 0.92941284

00:50:25.464 --> 00:50:25.964 engagers

NOTE Confidence: 0.9536843

00:50:26.585 --> 00:50:28.424 and even close to a

NOTE Confidence: 0.9536843

00:50:28.424 --> 00:50:28.924 hundred

NOTE Confidence: 0.94659275

00:50:29.384 --> 00:50:30.585 in the in this CAR

NOTE Confidence: 0.94659275

00:50:30.585 --> 00:50:31.964 T cell product, ciltasil,

NOTE Confidence: 0.9664064

00:50:32.265 --> 00:50:34.105 ninety seven percent. Only one

NOTE Confidence: 0.9664064

00:50:34.105 --> 00:50:35.250 of the patients did not

NOTE Confidence: 0.9664064

00:50:35.330 --> 00:50:36.710 respond in this clinical trial.

NOTE Confidence: 0.9796004

00:50:37.489 --> 00:50:38.630 So this is great.

NOTE Confidence: 0.9994422

00:50:38.930 --> 00:50:39.430 Unprecedented.

NOTE Confidence: 0.97240174

00:50:40.290 --> 00:50:42.210 Now in blue, our bar

NOTE Confidence: 0.97240174

00:50:42.210 --> 00:50:43.270 is showing you

NOTE Confidence: 0.99895585

00:50:43.650 --> 00:50:45.030 the number of months

NOTE Confidence: 0.99629706

00:50:45.650 --> 00:50:47.250 where fifty percent of the

NOTE Confidence: 0.99629706

00:50:47.250 --> 00:50:47.750 population

NOTE Confidence: 0.8792691

00:50:48.930 --> 00:50:50.370 progressed or in the other,

NOTE Confidence: 0.9388267

00:50:51.545 --> 00:50:53.305 the half the the cup

NOTE Confidence: 0.9388267

00:50:53.305 --> 00:50:54.685 half full, half empty,

NOTE Confidence: 0.99814045

00:50:54.985 --> 00:50:56.525 fifty percent did not progress

NOTE Confidence: 0.99814045

00:50:56.585 --> 00:50:58.525 at this time point. And

NOTE Confidence: 0.9829358

00:50:58.905 --> 00:51:00.665 comparing to the six months

NOTE Confidence: 0.9829358

00:51:00.665 --> 00:51:01.725 or less historically,

NOTE Confidence: 0.9989712

00:51:02.585 --> 00:51:03.785 you can see these agents

NOTE Confidence: 0.9989712

00:51:03.785 --> 00:51:05.725 are doing far superiorly

NOTE Confidence: 0.85478485

00:51:06.760 --> 00:51:07.500 with celtacel

NOTE Confidence: 0.95994663

00:51:07.880 --> 00:51:09.640 going on about three years.

NOTE Confidence: 0.95994663

00:51:09.640 --> 00:51:10.860 So on average,

NOTE Confidence: 0.9888999

00:51:11.160 --> 00:51:12.520 patients have a duration of

NOTE Confidence: 0.9888999

00:51:12.520 --> 00:51:14.060 response of three years.

NOTE Confidence: 0.9284438

00:51:14.360 --> 00:51:16.460 Again, unbelievable in these patients.

NOTE Confidence: 0.9994464

00:51:16.920 --> 00:51:18.920 And because these are so

NOTE Confidence: 0.9994464

00:51:18.920 --> 00:51:21.080 useful and efficacious in this

NOTE Confidence: 0.9994464

00:51:21.080 --> 00:51:21.820 late relapse,

NOTE Confidence: 0.987465

00:51:22.545 --> 00:51:24.464 They've been tested earlier and

NOTE Confidence: 0.987465

00:51:24.464 --> 00:51:26.145 were approved in early relapse

NOTE Confidence: 0.987465

00:51:26.145 --> 00:51:27.684 and are now being tested

NOTE Confidence: 0.9749034

00:51:28.145 --> 00:51:29.765 in frontline therapy

NOTE Confidence: 0.90347004

00:51:30.065 --> 00:51:30.805 and even,

NOTE Confidence: 0.9946417

00:51:32.145 --> 00:51:34.005 testing against transplant.

NOTE Confidence: 0.95922196

00:51:34.704 --> 00:51:36.065 We'll we'll know more in

NOTE Confidence: 0.95922196

00:51:36.065 --> 00:51:37.444 maybe five to ten years.

NOTE Confidence: 0.965149

00:51:39.310 --> 00:51:40.190 So CAR T is a

NOTE Confidence: 0.965149

00:51:40.190 --> 00:51:41.950 little bit different than other

NOTE Confidence: 0.965149

00:51:41.950 --> 00:51:43.570 therapies we use because,

NOTE Confidence: 0.9982357

00:51:43.950 --> 00:51:44.609 it requires

NOTE Confidence: 0.99024874

00:51:44.910 --> 00:51:45.410 manufacturing.

NOTE Confidence: 0.98925525

00:51:45.869 --> 00:51:46.829 So I just wanted to

NOTE Confidence: 0.98925525

00:51:46.829 --> 00:51:47.950 show you what this entails,

NOTE Confidence: 0.98925525

00:51:47.950 --> 00:51:48.829 what patients have to go

NOTE Confidence: 0.98925525

00:51:48.829 --> 00:51:50.349 through. First, we have to

NOTE Confidence: 0.98925525

00:51:50.349 --> 00:51:51.390 collect the T cells from

NOTE Confidence: 0.98925525

00:51:51.390 --> 00:51:53.150 the patients through apheresis, then

NOTE Confidence: 0.98925525

00:51:53.150 --> 00:51:54.494 they get shipped off to

NOTE Confidence: 0.98925525

00:51:54.494 --> 00:51:55.234 the manufacturer.

NOTE Confidence: 0.9325528

00:51:55.775 --> 00:51:56.594 They separate,

NOTE Confidence: 0.8948768

00:51:56.895 --> 00:51:58.594 the T cells. They they

NOTE Confidence: 0.8948768

00:51:58.654 --> 00:51:59.154 genetically

NOTE Confidence: 0.9995767

00:51:59.454 --> 00:52:00.994 modify them to express

NOTE Confidence: 0.93545735

00:52:01.614 --> 00:52:03.795 the chimeric T cell receptor,

NOTE Confidence: 0.981893

00:52:04.094 --> 00:52:05.295 then they grow, and then

NOTE Confidence: 0.981893

00:52:05.295 --> 00:52:05.954 they get

NOTE Confidence: 0.99869806

00:52:06.309 --> 00:52:07.589 brought back to the patient

NOTE Confidence: 0.99869806

00:52:07.589 --> 00:52:08.410 and infused

NOTE Confidence: 0.964941

00:52:08.710 --> 00:52:10.170 like a regular blood transfusion

NOTE Confidence: 0.91380024

00:52:10.469 --> 00:52:11.450 similar to that.

NOTE Confidence: 0.9505602

00:52:12.710 --> 00:52:14.069 This here show you a

NOTE Confidence: 0.9505602

00:52:14.069 --> 00:52:15.670 highlight of what this CAR

NOTE Confidence: 0.9505602

00:52:15.670 --> 00:52:16.069 T,

NOTE Confidence: 0.9609516

00:52:16.469 --> 00:52:17.829 what what the receptor looks

NOTE Confidence: 0.9609516

00:52:17.829 --> 00:52:19.109 like. So there's a binding

NOTE Confidence: 0.9609516

00:52:19.109 --> 00:52:20.390 domain. Again, this is to

NOTE Confidence: 0.9609516

00:52:20.390 --> 00:52:21.049 a protein

NOTE Confidence: 0.99101996

00:52:21.575 --> 00:52:22.395 called BCMA.

NOTE Confidence: 0.8366745

00:52:23.335 --> 00:52:25.095 IDACel has two binding domains

NOTE Confidence: 0.8366745

00:52:25.095 --> 00:52:26.695 and I and, sorry, cilta

NOTE Confidence: 0.8366745

00:52:26.695 --> 00:52:27.815 cell has two binding domains

NOTE Confidence: 0.8366745

00:52:27.815 --> 00:52:29.435 and IDACel has one.

NOTE Confidence: 0.96935946

00:52:31.975 --> 00:52:34.075 Now a major difference between

NOTE Confidence: 0.96935946

00:52:34.340 --> 00:52:36.120 CAR T and the bispecific

NOTE Confidence: 0.96935946

00:52:36.340 --> 00:52:38.100 T cell engagers also is

NOTE Confidence: 0.96935946

00:52:38.100 --> 00:52:40.020 how you administer it, which

NOTE Confidence: 0.96935946

00:52:40.020 --> 00:52:41.719 is relevant for patients. So

NOTE Confidence: 0.96935946

00:52:41.860 --> 00:52:42.360 bispecifics,

NOTE Confidence: 0.9659695

00:52:42.900 --> 00:52:44.100 we don't stop therapy. We

NOTE Confidence: 0.9659695

00:52:44.100 --> 00:52:45.140 give it every week or

NOTE Confidence: 0.9659695

00:52:45.140 --> 00:52:46.340 every two weeks and sometimes

NOTE Confidence: 0.9659695

00:52:46.340 --> 00:52:47.860 every four weeks depending on

NOTE Confidence: 0.9659695

00:52:47.860 --> 00:52:49.445 the product. But CAR T

NOTE Confidence: 0.9659695

00:52:49.445 --> 00:52:50.745 is a one time treatment,

NOTE Confidence: 0.9659695

00:52:50.965 --> 00:52:52.425 which is really,

NOTE Confidence: 0.98507553

00:52:52.885 --> 00:52:54.165 nice for patients who've been

NOTE Confidence: 0.98507553

00:52:54.165 --> 00:52:55.445 treated for many, many years

NOTE Confidence: 0.98507553

00:52:55.445 --> 00:52:55.945 continuously.

NOTE Confidence: 0.999136

00:52:57.925 --> 00:52:59.844 So just to close on

NOTE Confidence: 0.999136

00:52:59.844 --> 00:53:00.505 the myeloma

NOTE Confidence: 0.94556504

00:53:01.539 --> 00:53:02.819 category, you know, a lot

NOTE Confidence: 0.94556504

00:53:02.819 --> 00:53:04.579 of patient care happens with

NOTE Confidence: 0.94556504

00:53:04.579 --> 00:53:05.640 us, so you don't,

NOTE Confidence: 0.9834907

00:53:06.099 --> 00:53:07.140 see it as much, but

NOTE Confidence: 0.9834907

00:53:07.140 --> 00:53:07.940 you do see them once

NOTE Confidence: 0.9834907

00:53:07.940 --> 00:53:09.059 in a while. And there

NOTE Confidence: 0.9834907

00:53:09.059 --> 00:53:10.599 are some comorbidities

NOTE Confidence: 0.9752068

00:53:11.380 --> 00:53:11.859 that,

NOTE Confidence: 0.9824227

00:53:12.259 --> 00:53:14.180 can be exacerbated by our

NOTE Confidence: 0.9824227

00:53:14.180 --> 00:53:16.019 treatment. Steroids are often used

NOTE Confidence: 0.9824227

00:53:16.019 --> 00:53:17.160 in many of our regimens,

NOTE Confidence: 0.9824227

00:53:17.435 --> 00:53:18.975 so this could worsen hypertension,

NOTE Confidence: 0.9824227

00:53:19.195 --> 00:53:20.715 diabetes. I mean, we might

NOTE Confidence: 0.9824227

00:53:20.715 --> 00:53:21.994 need more support from you

NOTE Confidence: 0.9824227

00:53:21.994 --> 00:53:24.015 guys to help manage that.

NOTE Confidence: 0.9824227

00:53:24.075 --> 00:53:24.575 Carfizumab,

NOTE Confidence: 0.8946852

00:53:24.875 --> 00:53:26.255 which is the second generation

NOTE Confidence: 0.8946852

00:53:26.315 --> 00:53:28.494 proteasome inhibitor, could also,

NOTE Confidence: 0.9995449

00:53:28.875 --> 00:53:29.775 lead to hypertension

NOTE Confidence: 0.9681011

00:53:30.155 --> 00:53:31.215 and heart failure.

NOTE Confidence: 0.97495013

00:53:31.910 --> 00:53:33.270 And many of our treatments

NOTE Confidence: 0.97495013

00:53:33.270 --> 00:53:34.730 increase the risk for infections,

NOTE Confidence: 0.94056463

00:53:35.830 --> 00:53:37.290 often not opportunistic.

NOTE Confidence: 0.9839188

00:53:37.750 --> 00:53:38.950 But now with the t

NOTE Confidence: 0.9839188

00:53:38.950 --> 00:53:40.890 cell redirection therapies, we are

NOTE Confidence: 0.9839188

00:53:41.030 --> 00:53:42.489 seeing some more opportunistic

NOTE Confidence: 0.96460515

00:53:42.790 --> 00:53:44.630 infections. So it's important to,

NOTE Confidence: 0.9800873

00:53:46.025 --> 00:53:47.465 to recognize that. And with

NOTE Confidence: 0.9800873

00:53:47.465 --> 00:53:48.665 an infection, let us know

NOTE Confidence: 0.9800873

00:53:48.665 --> 00:53:49.705 what's going on so we

NOTE Confidence: 0.9800873

00:53:49.705 --> 00:53:51.085 can further assess.

NOTE Confidence: 0.97166383

00:53:51.785 --> 00:53:52.525 And lastly,

NOTE Confidence: 0.9535863

00:53:53.065 --> 00:53:54.585 I wanna end by showing

NOTE Confidence: 0.9535863

00:53:54.585 --> 00:53:56.425 you the gammopathy pathway that

NOTE Confidence: 0.9535863

00:53:56.425 --> 00:53:57.325 is in EPIC.

NOTE Confidence: 0.9910754

00:53:57.945 --> 00:53:58.344 And,

NOTE Confidence: 0.9930741

00:53:58.745 --> 00:53:59.864 it's a busy slide, but

NOTE Confidence: 0.9930741

00:53:59.864 --> 00:54:00.505 I want you to know

NOTE Confidence: 0.9930741

00:54:00.505 --> 00:54:01.165 it's there

NOTE Confidence: 0.9681988

00:54:02.130 --> 00:54:02.630 As

NOTE Confidence: 0.95573646

00:54:03.410 --> 00:54:04.609 and you can see that

NOTE Confidence: 0.95573646

00:54:04.609 --> 00:54:05.809 it guides you through if

NOTE Confidence: 0.95573646

00:54:05.809 --> 00:54:07.250 you have a monoclonal protein

NOTE Confidence: 0.95573646

00:54:07.250 --> 00:54:08.549 on SBEP or not.

NOTE Confidence: 0.9117834

00:54:09.809 --> 00:54:11.269 And showing you the monoclonal

NOTE Confidence: 0.9117834

00:54:11.410 --> 00:54:11.910 gammopathy,

NOTE Confidence: 0.9113701

00:54:12.849 --> 00:54:14.835 screen panel here, which makes

NOTE Confidence: 0.9113701

00:54:14.835 --> 00:54:16.355 sure you're ordering all the

NOTE Confidence: 0.9113701

00:54:16.355 --> 00:54:18.275 pair protein evaluation that we

NOTE Confidence: 0.9113701

00:54:18.275 --> 00:54:18.775 need

NOTE Confidence: 0.865188

00:54:19.315 --> 00:54:20.935 and also some key information

NOTE Confidence: 0.99946916

00:54:21.315 --> 00:54:23.255 about when to refer urgently,

NOTE Confidence: 0.99780804

00:54:23.715 --> 00:54:25.175 when to not refer urgently,

NOTE Confidence: 0.99780804

00:54:25.395 --> 00:54:27.155 when to repeat labs, and

NOTE Confidence: 0.99780804

00:54:27.155 --> 00:54:27.655 reassess.

NOTE Confidence: 0.9716801

00:54:29.920 --> 00:54:31.700 So to close our,

NOTE Confidence: 0.9957744

00:54:32.880 --> 00:54:33.620 talk today,

NOTE Confidence: 0.99950856

00:54:34.000 --> 00:54:35.620 these are just some summary

NOTE Confidence: 0.9333817

00:54:36.080 --> 00:54:37.780 points that we wanna highlight.

NOTE Confidence: 0.9529122

00:54:38.320 --> 00:54:39.440 First, we showed you how

NOTE Confidence: 0.9529122

00:54:39.440 --> 00:54:40.800 it's important to recognize whether

NOTE Confidence: 0.9529122

00:54:40.800 --> 00:54:42.260 it's normal light chain ratio,

NOTE Confidence: 0.9529122

00:54:42.515 --> 00:54:44.835 how, how age and, renal

NOTE Confidence: 0.9529122

00:54:44.835 --> 00:54:45.335 dysfunction

NOTE Confidence: 0.9944134

00:54:45.795 --> 00:54:46.935 can affect these.

NOTE Confidence: 0.9777016

00:54:47.475 --> 00:54:49.075 We showed you what low

NOTE Confidence: 0.9777016

00:54:49.075 --> 00:54:51.075 risk MGUS is, what is

NOTE Confidence: 0.9777016

00:54:51.075 --> 00:54:51.735 the definition,

NOTE Confidence: 0.99865645

00:54:52.835 --> 00:54:54.515 and that this often can

NOTE Confidence: 0.99865645

00:54:54.515 --> 00:54:55.875 be managed by primary care

NOTE Confidence: 0.99865645

00:54:55.875 --> 00:54:56.375 doctors

NOTE Confidence: 0.82775253

00:54:56.755 --> 00:54:57.255 if

NOTE Confidence: 0.8900984

00:54:58.160 --> 00:55:00.100 or co managed with us.

NOTE Confidence: 0.8702384

00:55:00.640 --> 00:55:02.420 When to urgently refer patient,

NOTE Confidence: 0.8702384

00:55:02.480 --> 00:55:03.300 CRAB criteria,

NOTE Confidence: 0.8827658

00:55:03.600 --> 00:55:04.100 certainly,

NOTE Confidence: 0.88301235

00:55:05.920 --> 00:55:07.440 things that make it in

NOTE Confidence: 0.88301235

00:55:07.440 --> 00:55:08.420 IgM, gammopathies,

NOTE Confidence: 0.980696

00:55:08.880 --> 00:55:10.880 things that kind of, are

NOTE Confidence: 0.980696

00:55:10.880 --> 00:55:12.885 red flags is new progressive

NOTE Confidence: 0.980696

00:55:13.025 --> 00:55:14.165 neuropathy or

NOTE Confidence: 0.99967706

00:55:14.545 --> 00:55:15.365 other symptoms

NOTE Confidence: 0.6042528

00:55:15.745 --> 00:55:16.245 diagnose,

NOTE Confidence: 0.9947832

00:55:16.545 --> 00:55:17.605 diagnosing Waldenstrom.

NOTE Confidence: 0.96759784

00:55:18.065 --> 00:55:18.885 And lastly,

NOTE Confidence: 0.9709831

00:55:19.745 --> 00:55:20.385 it would be,

NOTE Confidence: 0.96052325

00:55:21.105 --> 00:55:22.385 wonderful if you can look

NOTE Confidence: 0.96052325

00:55:22.385 --> 00:55:23.905 at the gammopathy pathway if

NOTE Confidence: 0.96052325

00:55:23.905 --> 00:55:25.125 you have a positive,

NOTE Confidence: 0.9717196

00:55:25.745 --> 00:55:27.460 finding and tell us if

NOTE Confidence: 0.9717196

00:55:27.460 --> 00:55:29.160 it was helpful or unhelpful.

NOTE Confidence: 0.9770712

00:55:29.540 --> 00:55:31.540 How can we, improve this

NOTE Confidence: 0.9770712

00:55:31.540 --> 00:55:32.739 pathway? And, also, there is

NOTE Confidence: 0.9770712

00:55:32.739 --> 00:55:33.960 some education material

NOTE Confidence: 0.9987841

00:55:34.260 --> 00:55:35.000 for MGUS

NOTE Confidence: 0.99868834

00:55:35.300 --> 00:55:36.520 to bring to the patient

NOTE Confidence: 0.9827881

00:55:37.140 --> 00:55:38.200 to reduce anxiety.

NOTE Confidence: 0.9509367

00:55:40.525 --> 00:55:43.025 That was terrific. A real,

NOTE Confidence: 0.959647

00:55:43.805 --> 00:55:45.005 everything you know need to

NOTE Confidence: 0.959647

00:55:45.005 --> 00:55:46.125 know from a to z

NOTE Confidence: 0.959647

00:55:46.125 --> 00:55:47.825 or maybe a to IGG.

NOTE Confidence: 0.959647

00:55:47.885 --> 00:55:48.945 I I don't know. IGM.

NOTE Confidence: 0.8861655

00:55:50.445 --> 00:55:51.565 We have a couple of

NOTE Confidence: 0.8861655

00:55:51.565 --> 00:55:53.185 questions, and we are

NOTE Confidence: 0.97187036

00:55:54.339 --> 00:55:55.380 getting near the end of

NOTE Confidence: 0.97187036

00:55:55.380 --> 00:55:56.819 the hour. One is the

NOTE Confidence: 0.97187036

00:55:56.819 --> 00:55:58.599 usual, is there a CME

NOTE Confidence: 0.97187036

00:55:58.660 --> 00:55:59.780 code? And and, Renee, if

NOTE Confidence: 0.97187036

00:55:59.780 --> 00:56:01.000 you can just type in,

NOTE Confidence: 0.93871

00:56:01.940 --> 00:56:02.900 that I I I think

NOTE Confidence: 0.93871

00:56:02.900 --> 00:56:03.940 what we found before is

NOTE Confidence: 0.93871

00:56:03.940 --> 00:56:05.540 if you're if you're here,

NOTE Confidence: 0.93871

00:56:05.540 --> 00:56:06.500 we end up getting you

NOTE Confidence: 0.93871

00:56:06.500 --> 00:56:07.000 credit,

NOTE Confidence: 0.9985588

00:56:07.859 --> 00:56:08.900 as long as your name

NOTE Confidence: 0.9985588

00:56:08.900 --> 00:56:09.400 shows.

NOTE Confidence: 0.9137064

00:56:10.325 --> 00:56:12.005 But one question from doctor

NOTE Confidence: 0.9137064

00:56:12.005 --> 00:56:13.864 Zarku Power is, is there

NOTE Confidence: 0.9819666

00:56:14.484 --> 00:56:16.484 is there robust research to

NOTE Confidence: 0.9819666

00:56:16.484 --> 00:56:17.765 link the risk of multiple

NOTE Confidence: 0.9819666

00:56:17.765 --> 00:56:19.065 myeloma to pesticides,

NOTE Confidence: 0.8983154

00:56:19.844 --> 00:56:22.025 agent orange, or other chemicals?

NOTE Confidence: 0.9256466

00:56:22.404 --> 00:56:24.400 There are sets of two

NOTE Confidence: 0.9256466

00:56:24.400 --> 00:56:26.000 patients in her panel who,

NOTE Confidence: 0.97958684

00:56:27.360 --> 00:56:29.280 have asked her opinion on

NOTE Confidence: 0.97958684

00:56:29.280 --> 00:56:31.120 that, pertaining to themselves and

NOTE Confidence: 0.97958684

00:56:31.120 --> 00:56:32.480 relatives. And if there's no

NOTE Confidence: 0.97958684

00:56:32.480 --> 00:56:34.260 robust research, why not?

NOTE Confidence: 0.95213217

00:56:39.075 --> 00:56:41.075 So, I'll say agent orange,

NOTE Confidence: 0.95213217

00:56:41.075 --> 00:56:41.575 definitely.

NOTE Confidence: 0.9977315

00:56:42.915 --> 00:56:44.135 That's a definite risk

NOTE Confidence: 0.9848274

00:56:45.235 --> 00:56:45.895 factor. Pesticides?

NOTE Confidence: 0.99954206

00:56:47.715 --> 00:56:48.855 I don't think so.

NOTE Confidence: 0.99808335

00:56:49.315 --> 00:56:50.614 I'm not I'm not familiar

NOTE Confidence: 0.99808335

00:56:50.675 --> 00:56:52.275 either with pesticides. One one

NOTE Confidence: 0.99808335

00:56:52.275 --> 00:56:53.340 thing I did wanna add

NOTE Confidence: 0.9743939

00:56:54.300 --> 00:56:55.420 is there is emerging evidence

NOTE Confidence: 0.9743939

00:56:55.420 --> 00:56:57.739 looking at connections, associations with

NOTE Confidence: 0.9743939

00:56:57.739 --> 00:56:59.760 components of metabolic syndrome, specifically

NOTE Confidence: 0.9743939

00:56:59.900 --> 00:57:01.980 obesity and diabetes, and both

NOTE Confidence: 0.9743939

00:57:01.980 --> 00:57:03.760 development and progression of monoclonal

NOTE Confidence: 0.9743939

00:57:03.900 --> 00:57:04.960 gammopathy and,

NOTE Confidence: 0.98361975

00:57:05.500 --> 00:57:06.780 you know, some studies looking

NOTE Confidence: 0.98361975

00:57:06.780 --> 00:57:08.555 at the potential for preventative

NOTE Confidence: 0.98361975

00:57:08.775 --> 00:57:09.275 interventions,

NOTE Confidence: 0.9949601

00:57:09.895 --> 00:57:10.855 because they you know, I

NOTE Confidence: 0.9949601

00:57:10.855 --> 00:57:11.355 think

NOTE Confidence: 0.9948442

00:57:11.655 --> 00:57:12.614 the thought is just kind

NOTE Confidence: 0.9948442

00:57:12.614 --> 00:57:13.974 of the the level of

NOTE Confidence: 0.9948442

00:57:13.974 --> 00:57:15.175 inflammation, but I think we

NOTE Confidence: 0.9948442

00:57:15.175 --> 00:57:16.375 we don't know exactly what

NOTE Confidence: 0.9948442

00:57:16.375 --> 00:57:17.435 the connection is.

NOTE Confidence: 0.9709729

00:57:24.119 --> 00:57:25.240 Drew, do you have any

NOTE Confidence: 0.9709729

00:57:25.240 --> 00:57:26.760 other questions for our panelists?

NOTE Confidence: 0.9709729

00:57:26.760 --> 00:57:27.960 You've been knee deep in

NOTE Confidence: 0.9709729

00:57:27.960 --> 00:57:29.160 this, and and you have

NOTE Confidence: 0.9709729

00:57:29.160 --> 00:57:30.619 an internist opportunity

NOTE Confidence: 0.9930219

00:57:31.079 --> 00:57:32.460 to be face to face.

NOTE Confidence: 0.9930219

00:57:32.680 --> 00:57:33.980 Any additional ones?

NOTE Confidence: 0.9215401

00:57:35.885 --> 00:57:37.244 I think I think I

NOTE Confidence: 0.9215401

00:57:37.244 --> 00:57:38.445 had a couple of of

NOTE Confidence: 0.92640543

00:57:39.325 --> 00:57:40.445 I guess I guess the

NOTE Confidence: 0.92640543

00:57:40.445 --> 00:57:40.945 IGA,

NOTE Confidence: 0.97478634

00:57:41.325 --> 00:57:42.285 like, we had two cases

NOTE Confidence: 0.97478634

00:57:42.285 --> 00:57:43.645 here with IGA. We had,

NOTE Confidence: 0.97478634

00:57:43.645 --> 00:57:45.165 you know, nothing detected on

NOTE Confidence: 0.97478634

00:57:45.165 --> 00:57:46.605 the SPEP. We know that

NOTE Confidence: 0.97478634

00:57:46.605 --> 00:57:47.744 the IGA migrates,

NOTE Confidence: 0.99195516

00:57:48.045 --> 00:57:49.425 you know, through the,

NOTE Confidence: 0.9417568

00:57:50.540 --> 00:57:51.520 into the beta,

NOTE Confidence: 0.82337135

00:57:54.619 --> 00:57:56.060 you know, the beta we

NOTE Confidence: 0.82337135

00:57:56.060 --> 00:57:57.020 we went blank on my

NOTE Confidence: 0.82337135

00:57:57.020 --> 00:57:58.619 knee on the term here.

NOTE Confidence: 0.82337135

00:57:58.619 --> 00:58:00.400 The beta region.

NOTE Confidence: 0.99303395

00:58:01.180 --> 00:58:01.580 Is there

NOTE Confidence: 0.94326633

00:58:02.460 --> 00:58:03.820 I guess the question is,

NOTE Confidence: 0.94326633

00:58:03.820 --> 00:58:04.320 like,

NOTE Confidence: 0.6731271

00:58:06.765 --> 00:58:08.785 the it it I

NOTE Confidence: 0.92007965

00:58:09.085 --> 00:58:10.125 guess, if it's high it's

NOTE Confidence: 0.92007965

00:58:10.125 --> 00:58:11.505 high risk. Right? So

NOTE Confidence: 0.9984812

00:58:12.444 --> 00:58:13.345 how do you

NOTE Confidence: 0.9371736

00:58:13.724 --> 00:58:15.484 when you're going by IGA

NOTE Confidence: 0.9371736

00:58:15.484 --> 00:58:15.984 levels

NOTE Confidence: 0.9888191

00:58:16.444 --> 00:58:18.204 and light chain levels to

NOTE Confidence: 0.9888191

00:58:18.204 --> 00:58:19.825 see if there's any progression

NOTE Confidence: 0.9888191

00:58:19.964 --> 00:58:20.785 of the disease,

NOTE Confidence: 0.99856967

00:58:21.560 --> 00:58:22.840 Is that always a hundred

NOTE Confidence: 0.99856967

00:58:22.840 --> 00:58:23.820 percent reliable?

NOTE Confidence: 0.9137905

00:58:26.360 --> 00:58:27.720 It does so does does

NOTE Confidence: 0.9137905

00:58:27.800 --> 00:58:29.000 I know there there when

NOTE Confidence: 0.9137905

00:58:29.000 --> 00:58:29.800 you do a bone marrow

NOTE Confidence: 0.9137905

00:58:29.800 --> 00:58:31.000 biopsy, you're more likely to

NOTE Confidence: 0.9137905

00:58:31.000 --> 00:58:31.740 see, like,

NOTE Confidence: 0.97772807

00:58:32.920 --> 00:58:35.180 more plasma cells in IgA,

NOTE Confidence: 0.98854715

00:58:36.635 --> 00:58:38.494 right, relative to IgG. So

NOTE Confidence: 0.97998583

00:58:38.875 --> 00:58:39.675 do do you see a

NOTE Confidence: 0.97998583

00:58:39.675 --> 00:58:41.775 direct correlation between the IgA,

NOTE Confidence: 0.9646881

00:58:43.035 --> 00:58:44.974 protein or the or the

NOTE Confidence: 0.9646881

00:58:45.035 --> 00:58:45.535 or

NOTE Confidence: 0.8757453

00:58:45.835 --> 00:58:46.974 the free light chain,

NOTE Confidence: 0.99532175

00:58:48.474 --> 00:58:48.974 quantification

NOTE Confidence: 0.92601025

00:58:49.355 --> 00:58:49.855 and,

NOTE Confidence: 0.86007875

00:58:50.795 --> 00:58:51.855 cell you know, like,

NOTE Confidence: 0.9006056

00:58:52.740 --> 00:58:54.740 progression of disease. Is that

NOTE Confidence: 0.9006056

00:58:54.740 --> 00:58:56.040 is that reliable?

NOTE Confidence: 0.9672707

00:58:56.660 --> 00:58:57.780 That that's that's a very

NOTE Confidence: 0.9672707

00:58:57.780 --> 00:58:59.160 good question. I mean, generally,

NOTE Confidence: 0.9672707

00:58:59.300 --> 00:59:00.840 we we look at everything.

NOTE Confidence: 0.677733

00:59:01.780 --> 00:59:02.280 In

NOTE Confidence: 0.9735742

00:59:02.660 --> 00:59:04.660 when patients progress, even if

NOTE Confidence: 0.9735742

00:59:04.660 --> 00:59:05.700 they have myeloma or if

NOTE Confidence: 0.9735742

00:59:05.700 --> 00:59:06.820 they're MGUS and they're going

NOTE Confidence: 0.9735742

00:59:06.820 --> 00:59:08.525 up, the IgA typically goes

NOTE Confidence: 0.9735742

00:59:08.525 --> 00:59:09.345 up first.

NOTE Confidence: 0.9693324

00:59:09.724 --> 00:59:11.265 And then the m spike

NOTE Confidence: 0.9693324

00:59:11.325 --> 00:59:13.164 will rise later, several months

NOTE Confidence: 0.9693324

00:59:13.164 --> 00:59:14.525 later. So that's why we

NOTE Confidence: 0.9693324

00:59:14.525 --> 00:59:15.345 look at both.

NOTE Confidence: 0.95966476

00:59:16.684 --> 00:59:18.365 The again, the trend holds

NOTE Confidence: 0.95966476

00:59:18.365 --> 00:59:19.964 true for the most part.

NOTE Confidence: 0.95966476

00:59:19.964 --> 00:59:21.244 When the there's more clonal

NOTE Confidence: 0.95966476

00:59:21.244 --> 00:59:22.525 plasma cells, there's gonna be

NOTE Confidence: 0.95966476

00:59:22.525 --> 00:59:23.480 more clonal,

NOTE Confidence: 0.94748884

00:59:24.180 --> 00:59:25.700 protein or or IGA or

NOTE Confidence: 0.94748884

00:59:25.700 --> 00:59:26.680 or light chains.

NOTE Confidence: 0.9193427

00:59:27.060 --> 00:59:28.660 But it might not be,

NOTE Confidence: 0.9191227

00:59:29.220 --> 00:59:30.420 like, a a one to

NOTE Confidence: 0.9191227

00:59:30.420 --> 00:59:31.640 one representation,

NOTE Confidence: 0.9952472

00:59:32.180 --> 00:59:33.560 but the trends hold true.

NOTE Confidence: 0.99967474

00:59:34.180 --> 00:59:34.680 Okay.

NOTE Confidence: 0.9968604

00:59:35.380 --> 00:59:36.119 That helps.

NOTE Confidence: 0.84547234

00:59:38.955 --> 00:59:39.695 I think

NOTE Confidence: 0.9984507

00:59:40.155 --> 00:59:41.435 I think it's really important

NOTE Confidence: 0.9984507

00:59:41.435 --> 00:59:42.875 for, like, primary care docs

NOTE Confidence: 0.9984507

00:59:42.875 --> 00:59:43.375 to

NOTE Confidence: 0.9986771

00:59:43.835 --> 00:59:44.335 recognize

NOTE Confidence: 0.93201077

00:59:44.715 --> 00:59:46.555 that low risk category. You

NOTE Confidence: 0.93201077

00:59:46.555 --> 00:59:47.995 know, the three criteria where

NOTE Confidence: 0.93201077

00:59:47.995 --> 00:59:48.975 it's the IgG,

NOTE Confidence: 0.9685509

00:59:49.675 --> 00:59:51.195 m protein, the less than

NOTE Confidence: 0.9685509

00:59:51.195 --> 00:59:52.175 one point five

NOTE Confidence: 0.9295749

00:59:52.599 --> 00:59:54.060 milligrams on the SPEP,

NOTE Confidence: 0.97687113

00:59:54.440 --> 00:59:55.900 and then the the normal

NOTE Confidence: 0.87676525

00:59:56.200 --> 00:59:58.040 serum prelate chain ratio. So

NOTE Confidence: 0.87676525

00:59:58.040 --> 00:59:58.619 I think,

NOTE Confidence: 0.87775004

00:59:59.079 --> 01:00:00.280 you know, we see something

NOTE Confidence: 0.87775004

01:00:00.280 --> 01:00:01.160 like this and we're like,

NOTE Confidence: 0.87775004

01:00:01.160 --> 01:00:01.980 oh my gosh.

NOTE Confidence: 0.94643784

01:00:02.280 --> 01:00:03.880 I don't want this to

NOTE Confidence: 0.94643784

01:00:03.880 --> 01:00:05.725 be my own, you know,

NOTE Confidence: 0.94643784

01:00:05.785 --> 01:00:07.805 monitoring, you know, responsibility.

NOTE Confidence: 0.9834773

01:00:08.265 --> 01:00:08.765 But,

NOTE Confidence: 0.9952945

01:00:09.705 --> 01:00:10.585 I think that's a key

NOTE Confidence: 0.9952945

01:00:10.585 --> 01:00:12.045 nugget for me,

NOTE Confidence: 0.9953785

01:00:12.345 --> 01:00:13.625 looking at this talk and

NOTE Confidence: 0.9953785

01:00:13.625 --> 01:00:14.845 going through this talk.

NOTE Confidence: 0.97708994

01:00:16.265 --> 01:00:17.385 The difference you know, the

NOTE Confidence: 0.97708994

01:00:17.385 --> 01:00:17.885 IGM,

NOTE Confidence: 0.96668136

01:00:18.240 --> 01:00:19.460 you have to think Waldenstrom's,

NOTE Confidence: 0.9185387

01:00:19.920 --> 01:00:21.200 you know, and then the

NOTE Confidence: 0.9185387

01:00:21.200 --> 01:00:22.480 IGA not the is always

NOTE Confidence: 0.9185387

01:00:22.480 --> 01:00:23.360 a low risk, needs a

NOTE Confidence: 0.9185387

01:00:23.520 --> 01:00:24.560 needs that biopsy. I think

NOTE Confidence: 0.9185387

01:00:24.560 --> 01:00:25.860 those are key take homes

NOTE Confidence: 0.8880806

01:00:26.320 --> 01:00:27.040 from my,

NOTE Confidence: 0.99915934

01:00:27.520 --> 01:00:28.020 standpoint.

NOTE Confidence: 0.95531255

01:00:32.444 --> 01:00:33.964 I guess the question going

NOTE Confidence: 0.95531255

01:00:33.964 --> 01:00:35.484 back to the toxins too,

NOTE Confidence: 0.9991154

01:00:35.885 --> 01:00:36.204 which

NOTE Confidence: 0.9297201

01:00:37.565 --> 01:00:38.525 and and the,

NOTE Confidence: 0.901636

01:00:39.005 --> 01:00:41.164 monoclonal the the monoclonal proteins.

NOTE Confidence: 0.901636

01:00:41.164 --> 01:00:42.305 But can

NOTE Confidence: 0.8280789

01:00:43.260 --> 01:00:44.380 they get the gentleman in

NOTE Confidence: 0.8280789

01:00:44.380 --> 01:00:46.140 this case who developed the,

NOTE Confidence: 0.91839135

01:00:46.620 --> 01:00:47.760 IgA Lambda

NOTE Confidence: 0.86720645

01:00:48.300 --> 01:00:49.420 and with the false positive

NOTE Confidence: 0.86720645

01:00:49.420 --> 01:00:50.320 Lyme, etcetera,

NOTE Confidence: 0.9876349

01:00:51.660 --> 01:00:53.740 he blames things on his

NOTE Confidence: 0.9876349

01:00:53.740 --> 01:00:55.600 COVID vaccine. Right? So,

NOTE Confidence: 0.972268

01:00:56.035 --> 01:00:58.195 yeah, COVID vaccine, he developed

NOTE Confidence: 0.972268

01:00:58.195 --> 01:01:00.275 this neuropathy, and we found

NOTE Confidence: 0.972268

01:01:00.275 --> 01:01:01.335 this this issue.

NOTE Confidence: 0.9438778

01:01:01.715 --> 01:01:03.555 He developed ulcerative colitis after

NOTE Confidence: 0.9438778

01:01:03.555 --> 01:01:05.095 his COVID vaccine. So he's

NOTE Confidence: 0.9438778

01:01:05.155 --> 01:01:07.395 a he's he's moving towards

NOTE Confidence: 0.9438778

01:01:07.395 --> 01:01:08.835 that realm. I'm not saying

NOTE Confidence: 0.9438778

01:01:08.835 --> 01:01:09.895 anything is

NOTE Confidence: 0.95148027

01:01:10.510 --> 01:01:11.470 is is you know, I'm

NOTE Confidence: 0.95148027

01:01:11.470 --> 01:01:12.830 not I'm not buying that

NOTE Confidence: 0.95148027

01:01:12.830 --> 01:01:14.030 story a whole lot, but

NOTE Confidence: 0.95148027

01:01:14.190 --> 01:01:15.150 at all. But, you you

NOTE Confidence: 0.95148027

01:01:15.150 --> 01:01:16.290 know, thinking of,

NOTE Confidence: 0.8169333

01:01:17.070 --> 01:01:18.450 yeah, I know, thinking of,

NOTE Confidence: 0.8965371

01:01:20.510 --> 01:01:21.710 antibody like, is there a

NOTE Confidence: 0.8965371

01:01:21.710 --> 01:01:22.850 correlation between

NOTE Confidence: 0.91346484

01:01:23.335 --> 01:01:24.855 any autoimmune syndrome or kind

NOTE Confidence: 0.91346484

01:01:24.855 --> 01:01:26.375 of stimulation of b cells

NOTE Confidence: 0.91346484

01:01:26.375 --> 01:01:28.295 in some way and increase

NOTE Confidence: 0.91346484

01:01:28.295 --> 01:01:30.055 risk of of of these

NOTE Confidence: 0.91346484

01:01:30.055 --> 01:01:30.555 disorders?

NOTE Confidence: 0.95440114

01:01:31.575 --> 01:01:33.335 Like, you know, COVID vaccine,

NOTE Confidence: 0.95440114

01:01:33.335 --> 01:01:34.235 we're stimulating,

NOTE Confidence: 0.9958652

01:01:34.855 --> 01:01:35.515 you know,

NOTE Confidence: 0.94261336

01:01:37.150 --> 01:01:37.970 antibody production,

NOTE Confidence: 0.8695551

01:01:38.830 --> 01:01:40.030 but not saying causation. But

NOTE Confidence: 0.8695551

01:01:40.030 --> 01:01:41.090 is there any

NOTE Confidence: 0.9874629

01:01:41.390 --> 01:01:42.670 is there any discussion of

NOTE Confidence: 0.9874629

01:01:42.670 --> 01:01:43.970 that, or is there any

NOTE Confidence: 0.93866307

01:01:47.390 --> 01:01:48.910 similar concerns being brought to

NOTE Confidence: 0.93866307

01:01:48.910 --> 01:01:49.410 your

NOTE Confidence: 0.73311377

01:01:50.035 --> 01:01:50.535 attention.

NOTE Confidence: 0.99903727

01:01:50.995 --> 01:01:51.875 Yeah. I I think these

NOTE Confidence: 0.99903727

01:01:51.875 --> 01:01:53.075 are questions we get as

NOTE Confidence: 0.99903727

01:01:53.075 --> 01:01:54.035 well. I mean, I think

NOTE Confidence: 0.99903727

01:01:54.035 --> 01:01:54.695 there is

NOTE Confidence: 0.98838633

01:01:54.995 --> 01:01:56.355 thought to be association with

NOTE Confidence: 0.98838633

01:01:56.355 --> 01:01:56.855 autoimmune

NOTE Confidence: 0.9638353

01:01:57.555 --> 01:01:59.235 inflammatory disorders where there's kind

NOTE Confidence: 0.9638353

01:01:59.235 --> 01:02:00.835 of constant stimulation of b

NOTE Confidence: 0.9638353

01:02:00.835 --> 01:02:02.295 cells like like you're saying.

NOTE Confidence: 0.95691055

01:02:02.990 --> 01:02:04.030 You know, I'm not aware.

NOTE Confidence: 0.95691055

01:02:04.030 --> 01:02:05.329 I I there was,

NOTE Confidence: 0.97372556

01:02:05.869 --> 01:02:07.390 a small study presented as

NOTE Confidence: 0.97372556

01:02:07.390 --> 01:02:08.829 an abstract looking at change

NOTE Confidence: 0.97372556

01:02:08.829 --> 01:02:10.510 in monoclonal protein after COVID

NOTE Confidence: 0.97372556

01:02:10.510 --> 01:02:12.050 vaccines, and there was none.

NOTE Confidence: 0.97372556

01:02:12.190 --> 01:02:14.050 No evidence of progression. So,

NOTE Confidence: 0.97372556

01:02:14.349 --> 01:02:15.435 I'm not aware of anything

NOTE Confidence: 0.97372556

01:02:15.435 --> 01:02:16.715 kinda larger than that, but

NOTE Confidence: 0.97372556

01:02:16.715 --> 01:02:17.675 that's a question that comes

NOTE Confidence: 0.97372556

01:02:17.675 --> 01:02:18.955 up a lot from our

NOTE Confidence: 0.97372556

01:02:18.955 --> 01:02:19.995 patients. But, you know, that

NOTE Confidence: 0.97372556

01:02:20.075 --> 01:02:21.275 and from that small information,

NOTE Confidence: 0.97372556

01:02:21.275 --> 01:02:22.075 I don't think we think

NOTE Confidence: 0.97372556

01:02:22.075 --> 01:02:23.595 there's connection. At least in

NOTE Confidence: 0.97372556

01:02:23.595 --> 01:02:25.035 patients that have have MGUS,

NOTE Confidence: 0.97372556

01:02:25.035 --> 01:02:26.315 you know, don't progress to

NOTE Confidence: 0.97372556

01:02:26.315 --> 01:02:27.455 to something more.

NOTE Confidence: 0.91171926

01:02:27.940 --> 01:02:28.980 Yeah. I mean, that's that's

NOTE Confidence: 0.91171926

01:02:28.980 --> 01:02:30.740 good. Just, cut us off

NOTE Confidence: 0.91171926

01:02:30.740 --> 01:02:32.520 because we passed our hour.

NOTE Confidence: 0.90725774

01:02:33.220 --> 01:02:35.560 Yeah. And I so appreciate

NOTE Confidence: 0.90725774

01:02:35.780 --> 01:02:36.840 all of the preparation

NOTE Confidence: 0.98803085

01:02:37.220 --> 01:02:38.260 that you all did to

NOTE Confidence: 0.98803085

01:02:38.260 --> 01:02:39.000 bring us

NOTE Confidence: 0.941911

01:02:39.300 --> 01:02:40.900 all of this information. This

NOTE Confidence: 0.941911

01:02:40.900 --> 01:02:42.500 is really helpful. And, if

NOTE Confidence: 0.941911

01:02:42.500 --> 01:02:43.375 there are others who you

NOTE Confidence: 0.941911

01:02:43.375 --> 01:02:44.655 think may be interested, please

NOTE Confidence: 0.941911

01:02:44.655 --> 01:02:45.395 feel free,

NOTE Confidence: 0.98879576

01:02:46.015 --> 01:02:47.455 to share the link, to

NOTE Confidence: 0.98879576

01:02:47.455 --> 01:02:49.135 watch afterwards. We thank you

NOTE Confidence: 0.98879576

01:02:49.135 --> 01:02:49.875 for attending,

NOTE Confidence: 0.9988616

01:02:51.135 --> 01:02:52.655 and we'll see you next

NOTE Confidence: 0.9988616

01:02:52.655 --> 01:02:54.195 month when we have colorectal

NOTE Confidence: 0.9993314

01:02:54.495 --> 01:02:56.495 cancer prevention and screening as

NOTE Confidence: 0.9993314

01:02:56.495 --> 01:02:57.555 our hot topic.

NOTE Confidence: 0.9194515

01:02:58.545 --> 01:03:00.385 Thanks, everyone. Bye bye. Very

NOTE Confidence: 0.9194515

01:03:00.385 --> 01:03:00.885 much.