WEBVTT

NOTE duration:"01:10:11.3770000"

NOTE language:en-us

NOTE Confidence: 0.981817

00:00:00.000 --> 00:00:02.639 Joining us today to talk a little

NOTE Confidence: 0.981817

00:00:02.639 --> 00:00:04.430 bit about multiple myeloma.

NOTE Confidence: 0.981817

00:00:04.430 --> 00:00:06.420 I am new for Barnwell,

NOTE Confidence: 0.981817

00:00:06.420 --> 00:00:09.399 the myeloma doctors here at Yale and we will

NOTE Confidence: 0.981817

00:00:09.399 --> 00:00:12.408 be talking about three different topics,

NOTE Confidence: 0.981817

00:00:12.410 --> 00:00:14.909 each about 15 minutes long and then

NOTE Confidence: 0.981817

00:00:14.909 --> 00:00:17.998 will have 15 minutes of discussion Q&A.

NOTE Confidence: 0.981817

00:00:18.000 --> 00:00:20.562 So I will be talking about understanding

NOTE Confidence: 0.981817

00:00:20.562 --> 00:00:22.978 myeloma come my colleague, Doctor

NOTE Confidence: 0.981817

00:00:22.978 --> 00:00:26.566 Sabrina Browning will be talking about.

NOTE Confidence: 0.981817

00:00:26.570 --> 00:00:27.880 More specific.

NOTE Confidence: 0.981817

00:00:27.880 --> 00:00:31.810 About the new treatments out there

NOTE Confidence: 0.981817

00:00:31.810 --> 00:00:34.809 for multiple myeloma and or.

NOTE Confidence: 0.981817

00:00:34.810 --> 00:00:36.726 Really excellent physician assistant

NOTE Confidence: 0.981817

00:00:36.726 --> 00:00:39.600 Tara Anderson will be talking about

NOTE Confidence: 0.981817

00:00:39.674 --> 00:00:41.792 Texas cities of certain drugs and

NOTE Confidence: 0.981817

00:00:41.792 --> 00:00:44.169 then we'll have our the rest of

NOTE Confidence: 0.981817

00:00:44.169 --> 00:00:46.262 our team join us for the question

NOTE Confidence: 0.981817

00:00:46.270 --> 00:00:48.952 and answer and doctor Terry Parker

NOTE Confidence: 0.981817

00:00:48.952 --> 00:00:51.519 and Doctor Natalia will parts so.

NOTE Confidence: 0.981817

00:00:51.520 --> 00:00:54.946 With that we will start our.

NOTE Confidence: 0.981817

00:00:54.950 --> 00:00:57.100 Session.

NOTE Confidence: 0.981817

00:00:57.100 --> 00:00:57.760 2nd.

NOTE Confidence: 0.9911908

00:01:07.200 --> 00:01:10.814 Alright. So my goal for the next

NOTE Confidence: 0.9911908

00:01:10.814 --> 00:01:13.528 15 minutes is to give you some

NOTE Confidence: 0.9911908

00:01:13.528 --> 00:01:15.958 insights into understanding what is

NOTE Confidence: 0.9911908

00:01:15.958 --> 00:01:18.306 multiple myeloma and some general

NOTE Confidence: 0.9911908

00:01:18.306 --> 00:01:20.910 principles of how we think about

NOTE Confidence: 0.9911908

00:01:20.910 --> 00:01:22.580 treatment for multiple myeloma.

NOTE Confidence: 0.989964

00:01:26.210 --> 00:01:29.450 I have no disclosures.

NOTE Confidence: 0.989964

00:01:29.450 --> 00:01:31.310 I'd like to start by talking

NOTE Confidence: 0.989964

00:01:31.310 --> 00:01:32.550 about the bone marrow,

NOTE Confidence: 0.989964

00:01:32.550 --> 00:01:34.410 which is where my llama lips,

NOTE Confidence: 0.989964

00:01:34.410 --> 00:01:35.610 now the bone marrow,

NOTE Confidence: 0.989964

00:01:35.610 --> 00:01:37.820 is a spongy part of the bone,

NOTE Confidence: 0.989964

00:01:37.820 --> 00:01:40.004 and it's in charge of making some

NOTE Confidence: 0.989964

00:01:40.004 --> 00:01:41.540 important cells in our body.

NOTE Confidence: 0.989964

00:01:41.540 --> 00:01:43.090 It makes red blood cells,

NOTE Confidence: 0.989964

00:01:43.090 --> 00:01:45.897 which carry oxygen and give us energy.

NOTE Confidence: 0.989964

00:01:45.900 --> 00:01:48.020 It makes platelets which prevent

NOTE Confidence: 0.989964

00:01:48.020 --> 00:01:50.683 bleeding and it makes white blood

NOTE Confidence: 0.989964

00:01:50.683 --> 00:01:53.038 cells which help fight infections.

NOTE Confidence: 0.989964

00:01:53.040 --> 00:01:55.332 Now, one of the white blood

NOTE Confidence: 0.989964

00:01:55.332 --> 00:01:57.400 cells is called plasma cells,

NOTE Confidence: 0.989964

00:01:57.400 --> 00:01:59.488 and these plasma cells help our

NOTE Confidence: 0.989964

00:01:59.488 --> 00:02:01.347 bodies fight infection by making

NOTE Confidence: 0.989964

00:02:01.347 --> 00:02:03.362 antibodies and antibodies are proteins

NOTE Confidence: 0.989964

00:02:03.362 --> 00:02:05.710 that bind to foreign substances,

NOTE Confidence: 0.989964

00:02:05.710 --> 00:02:08.086 for example, like a bacterial infection,

NOTE Confidence: 0.989964

00:02:08.090 --> 00:02:10.370 and it helps kill it and

NOTE Confidence: 0.989964

00:02:10.370 --> 00:02:12.440 clear it from the body.

NOTE Confidence: 0.989964

00:02:12.440 --> 00:02:14.040 Now, under normal circumstances

NOTE Confidence: 0.989964

00:02:14.040 --> 00:02:16.893 we have a small amount of these

NOTE Confidence: 0.989964

00:02:16.893 --> 00:02:19.179 plasma cells in the bone marrow,

NOTE Confidence: 0.989964

00:02:19.180 --> 00:02:20.696 roughly 5% or so,

NOTE Confidence: 0.989964

00:02:20.696 --> 00:02:24.010 and they make a variety of antibodies.

NOTE Confidence: 0.989964

00:02:24.010 --> 00:02:27.546 So uhm, no antibody is like the other.

NOTE Confidence: 0.989964

00:02:27.550 --> 00:02:29.536 Now, if one of these plasma

NOTE Confidence: 0.989964

00:02:29.536 --> 00:02:31.610 cells is now becoming cancerous,

NOTE Confidence: 0.989964

00:02:31.610 --> 00:02:32.807 it's abnormal normal.

NOTE Confidence: 0.989964

00:02:32.807 --> 00:02:34.802 It's able to replicate itself

NOTE Confidence: 0.989964

00:02:34.802 --> 00:02:37.139 and make a clone out of itself,

NOTE Confidence: 0.989964

00:02:37.140 --> 00:02:39.772 and in doing that it over crowds the

NOTE Confidence: 0.989964

00:02:39.772 --> 00:02:42.315 bone marrow with too many of these

NOTE Confidence: 0.989964

00:02:42.315 --> 00:02:44.625 abnormal plasma cells and they no

NOTE Confidence: 0.989964

00:02:44.625 --> 00:02:46.735 longer make variety of antibodies,

NOTE Confidence: 0.989964

00:02:46.740 --> 00:02:49.014 but rather they make a lot

NOTE Confidence: 0.989964

00:02:49.014 --> 00:02:51.510 of 1 type of antibody.

NOTE Confidence: 0.989964

00:02:51.510 --> 00:02:54.163 And this is what we called the

NOTE Confidence: 0.989964

00:02:54.163 --> 00:02:56.718 monoclonal protein M spike and protein,

NOTE Confidence: 0.989964

00:02:56.720 --> 00:02:59.527 all different names for the same thing.

NOTE Confidence: 0.989964

00:02:59.530 --> 00:03:03.220 And this antibody can be one of the common

NOTE Confidence: 0.989964

00:03:03.220 --> 00:03:05.945 antibodies that are found in our bodies,

NOTE Confidence: 0.989964

00:03:05.950 --> 00:03:06.814 most commonly,

NOTE Confidence: 0.989964

00:03:06.814 --> 00:03:10.270 IgG IGA is often also seen and more

NOTE Confidence: 0.989964

00:03:10.365 --> 00:03:13.305 rarely IG M and IG D Now a part of

NOTE Confidence: 0.989964

00:03:13.394 --> 00:03:16.768 that protein is called the light chain,

NOTE Confidence: 0.989964

00:03:16.770 --> 00:03:20.028 and it's either Kappa or Lambda.

NOTE Confidence: 0.989964

00:03:20.030 --> 00:03:22.858 So a monoclonal protein can be identified,

NOTE Confidence: 0.989964

00:03:22.860 --> 00:03:23.666 for example,

NOTE Confidence: 0.989964

00:03:23.666 --> 00:03:26.487 is an IgG Lambda and IGA Kappa,

NOTE Confidence: 0.989964

00:03:26.490 --> 00:03:29.365 and that is that that

NOTE Confidence: 0.989964

00:03:29.365 --> 00:03:31.665 clone for that individual.

NOTE Confidence: 0.989964

00:03:31.670 --> 00:03:34.406 So how does multiple myeloma affect the body?

NOTE Confidence: 0.989964

00:03:34.410 --> 00:03:37.320 How does it make someone feel?

NOTE Confidence: 0.989964

00:03:37.320 --> 00:03:39.896 I'm gonna talk about some of the common

NOTE Confidence: 0.989964

00:03:39.896 --> 00:03:41.559 manifestations of multiple myeloma,

NOTE Confidence: 0.989964

00:03:41.560 --> 00:03:43.765 but I want you to remember that

NOTE Confidence: 0.989964

00:03:43.765 --> 00:03:47.200 not all of these are found in every person.

NOTE Confidence: 0.989964

00:03:47.200 --> 00:03:47.553 OK,

NOTE Confidence: 0.989964

00:03:47.553 --> 00:03:50.730 so the first thing is high calcium level OK,

NOTE Confidence: 0.989964

00:03:50.730 --> 00:03:52.848 and I and I put this.

NOTE Confidence: 0.989964

00:03:52.850 --> 00:03:54.615 See for that here and

NOTE Confidence: 0.989964

00:03:54.615 --> 00:03:56.027 sometimes high calcium levels.

NOTE Confidence: 0.989964

00:03:56.030 --> 00:03:57.202 It's not that bad.

NOTE Confidence: 0.989964

00:03:57.202 --> 00:03:58.960 It's not going to make anyone

NOTE Confidence: 0.989964

00:03:59.029 --> 00:04:00.619 feel anything differently,

NOTE Confidence: 0.989964

00:04:00.620 --> 00:04:02.932 but if it's very high it can make

NOTE Confidence: 0.989964

00:04:02.932 --> 00:04:05.210 someone feel unwelcome cause confusion.

NOTE Confidence: 0.989964

00:04:05.210 --> 00:04:07.060 You can cause some Constipation

NOTE Confidence: 0.989964

00:04:07.060 --> 00:04:08.170 or abdominal discomfort.

NOTE Confidence: 0.989964

00:04:08.170 --> 00:04:10.669 So I put the picture there to

NOTE Confidence: 0.989964

00:04:10.669 --> 00:04:13.008 just to signify that the next

NOTE Confidence: 0.989964

00:04:13.008 --> 00:04:15.384 is represented by the letter R.

NOTE Confidence: 0.989964

00:04:15.390 --> 00:04:17.290 So are standing for renal,

NOTE Confidence: 0.989964

00:04:17.290 --> 00:04:19.570 another word for renal is kidney,

NOTE Confidence: 0.989964

00:04:19.570 --> 00:04:22.522 so my Loma cells and the proteins that

NOTE Confidence: 0.989964

00:04:22.522 --> 00:04:25.650 they produce can cause damage to the kidneys.

NOTE Confidence: 0.989964

00:04:25.650 --> 00:04:25.990 Next,

NOTE Confidence: 0.989964

00:04:25.990 --> 00:04:27.010 a four anemia,

NOTE Confidence: 0.989964

00:04:27.010 --> 00:04:29.953 so that's low red blood cell count and

NOTE Confidence: 0.989964

00:04:29.953 --> 00:04:32.865 therefore you have less oxygen going around.

NOTE Confidence: 0.989964

00:04:32.870 --> 00:04:34.010 2/2 essential organs.

NOTE Confidence: 0.989964

00:04:34.010 --> 00:04:36.290 People feel tired in this situation.

NOTE Confidence: 0.989964

00:04:36.290 --> 00:04:38.430 They're not able to do.

NOTE Confidence: 0.989964

00:04:38.430 --> 00:04:41.418 Their daily activities.

NOTE Confidence: 0.989964

00:04:41.420 --> 00:04:42.112 And lastly,

NOTE Confidence: 0.989964

00:04:42.112 --> 00:04:44.880 be standing for bone pain or bone lesions,

NOTE Confidence: 0.9833931

00:04:44.880 --> 00:04:47.232 and a lesion is any kind of

NOTE Confidence: 0.9833931

00:04:47.232 --> 00:04:49.030 abnormality seen in the bones.

NOTE Confidence: 0.9833931

00:04:49.030 --> 00:04:51.574 And so in myeloma you can have either

NOTE Confidence: 0.9833931

00:04:51.574 --> 00:04:54.275 holes in the bones and this can make

NOTE Confidence: 0.9833931

00:04:54.275 --> 00:04:56.815 the bones weaker and you can have

NOTE Confidence: 0.9833931

00:04:56.815 --> 00:04:58.715 fractures which can cause pain,

NOTE Confidence: 0.9833931

00:04:58.720 --> 00:05:01.168 but sometimes more rarely we see

NOTE Confidence: 0.9833931

00:05:01.168 --> 00:05:02.800 actually accumulation of these

NOTE Confidence: 0.9833931

00:05:02.872 --> 00:05:04.816 abnormal plasma cells forming a ball

NOTE Confidence: 0.9833931

00:05:04.816 --> 00:05:07.345 or a mass and this can be within

NOTE Confidence: 0.9833931

00:05:07.345 --> 00:05:09.555 the bone or outside of the bone

NOTE Confidence: 0.9833931

00:05:09.555 --> 00:05:11.830 and we call these plasmacytomas.

NOTE Confidence: 0.9833931

00:05:11.830 --> 00:05:14.773 So you can see the CRA beat spells crab

NOTE Confidence: 0.9833931

00:05:14.773 --> 00:05:18.061 and this is the famous crab criteria or

NOTE Confidence: 0.9833931

00:05:18.061 --> 00:05:20.900 crab symptoms that we often talk about.

NOTE Confidence: 0.9833931

00:05:20.900 --> 00:05:24.490 Or you might have read.

NOTE Confidence: 0.9833931

00:05:24.490 --> 00:05:26.914 Now the definition of myeloma has

NOTE Confidence: 0.9833931

00:05:26.914 --> 00:05:29.780 changed over time for many many years.

NOTE Confidence: 0.9833931

00:05:29.780 --> 00:05:30.594 Basically, yes,

NOTE Confidence: 0.9833931

00:05:30.594 --> 00:05:33.850 you had to have these abnormal plasma cells,

NOTE Confidence: 0.9833931

00:05:33.850 --> 00:05:36.658 but you had to have met one at

NOTE Confidence: 0.9833931

00:05:36.658 --> 00:05:39.283 least one of the crab criteria

NOTE Confidence: 0.9833931

00:05:39.283 --> 00:05:41.573 that we just talked about.

NOTE Confidence: 0.9833931

00:05:41.580 --> 00:05:43.384 Things changed in 2014.

NOTE Confidence: 0.9833931

00:05:43.384 --> 00:05:46.090 The criteria changed and now we

NOTE Confidence: 0.9833931

00:05:46.177 --> 00:05:47.488 have slim crepe.

NOTE Confidence: 0.9833931

00:05:47.490 --> 00:05:49.240 How did we get slim?

NOTE Confidence: 0.9833931

00:05:49.240 --> 00:05:50.990 So to really understand why

NOTE Confidence: 0.9833931

00:05:50.990 --> 00:05:52.740 and how Slim came about,

NOTE Confidence: 0.9833931

00:05:52.740 --> 00:05:54.840 we have to go back and

NOTE Confidence: 0.9833931

00:05:54.840 --> 00:05:55.890 understand the precursor,

NOTE Confidence: 0.9833931

00:05:55.890 --> 00:05:57.505 the condition that comes before

NOTE Confidence: 0.9833931

00:05:57.505 --> 00:05:58.797 multiple myeloma called this

NOTE Confidence: 0.9833931

00:05:58.797 --> 00:06:00.439 the precursor states myeloma.

NOTE Confidence: 0.9833931

00:06:00.440 --> 00:06:02.694 We know that all patients who have

NOTE Confidence: 0.9833931

00:06:02.694 --> 00:06:04.108 myeloma before they developed

NOTE Confidence: 0.9833931

00:06:04.108 --> 00:06:06.043 in myeloma had these abnormal

NOTE Confidence: 0.9833931

00:06:06.043 --> 00:06:08.315 plasma cells exist within a small

NOTE Confidence: 0.9833931

00:06:08.315 --> 00:06:09.955 quantity small quantity and it

NOTE Confidence: 0.9833931

00:06:09.955 --> 00:06:12.212 didn't cause any trouble so you

NOTE Confidence: 0.9833931

00:06:12.212 --> 00:06:14.756 wouldn't know you had them unless

NOTE Confidence: 0.9833931

00:06:14.756 --> 00:06:17.717 you actually go and look for them.

NOTE Confidence: 0.9833931

00:06:17.720 --> 00:06:21.409 The majority of patients with M Gus

NOTE Confidence: 0.9833931

00:06:21.409 --> 00:06:24.070 actually don't progress to myeloma,

NOTE Confidence: 0.9833931

00:06:24.070 --> 00:06:26.860 but some.

NOTE Confidence: 0.9833931

00:06:26.860 --> 00:06:28.470 Do you move on to the next

NOTE Confidence: 0.9833931

00:06:28.470 --> 00:06:30.616 step and the next step is what

NOTE Confidence: 0.9833931

00:06:30.616 --> 00:06:32.004 we called smoldering myeloma.

NOTE Confidence: 0.9833931

00:06:32.010 --> 00:06:33.844 Now smoldering my luma and us both

NOTE Confidence: 0.9833931

00:06:33.844 --> 00:06:35.440 don't have any crab criteria.

NOTE Confidence: 0.9833931

00:06:35.440 --> 00:06:37.156 What we called the precursor states,

NOTE Confidence: 0.9833931

00:06:37.160 --> 00:06:38.725 but the difference between them

NOTE Confidence: 0.9833931

00:06:38.725 --> 00:06:40.290 is smoldering element has more

NOTE Confidence: 0.9833931

00:06:40.349 --> 00:06:42.015 plasma cells as you can see here.

NOTE Confidence: 0.9833931

00:06:42.020 --> 00:06:44.015 If you go by the correct by,

NOTE Confidence: 0.9833931

00:06:44.020 --> 00:06:45.164 the technical definition should

NOTE Confidence: 0.9833931

00:06:45.164 --> 00:06:47.102 have more than 10% plasma cells

NOTE Confidence: 0.9833931

00:06:47.102 --> 00:06:48.686 in the bone marrow.

NOTE Confidence: 0.9833931

00:06:48.690 --> 00:06:51.498 But what does this mean to the person right?

NOTE Confidence: 0.9833931

00:06:51.500 --> 00:06:53.060 How does that affect you?

NOTE Confidence: 0.9833931

00:06:53.060 --> 00:06:53.658 Uhm, well,

NOTE Confidence: 0.9833931

00:06:53.658 --> 00:06:55.751 the risk of progression to myeloma is

NOTE Confidence: 0.9833931

00:06:55.751 --> 00:06:57.740 slightly higher in the smoldering group,

NOTE Confidence: 0.9833931

00:06:57.740 --> 00:07:00.096 where we have a 10% an average

NOTE Confidence: 0.9833931

00:07:00.096 --> 00:07:02.086 risk of progression to myeloma.

NOTE Confidence: 0.9833931

00:07:02.090 --> 00:07:07.018 Compared to 1% in the US population.

NOTE Confidence: 0.9833931

00:07:07.020 --> 00:07:08.742 Now looking at the Group of smolder

NOTE Confidence: 0.9833931

00:07:08.742 --> 00:07:10.129 malama little bit more closely,

NOTE Confidence: 0.9833931

00:07:10.130 --> 00:07:12.590 yes, we have a very well.

NOTE Confidence: 0.9833931

00:07:12.590 --> 00:07:14.816 Defined, you know, definition for this,

NOTE Confidence: 0.9833931

00:07:14.820 --> 00:07:17.724 but the folks in this group are quite

NOTE Confidence: 0.9833931

00:07:17.724 --> 00:07:20.377 diverse and not everyone is the same,

NOTE Confidence: 0.9833931

00:07:20.380 --> 00:07:22.639 so we have.

NOTE Confidence: 0.9833931

00:07:22.640 --> 00:07:24.720 Patients here that actually behave

NOTE Confidence: 0.9833931

00:07:24.720 --> 00:07:27.249 their disease behaves more like M Gus,

NOTE Confidence: 0.9833931

00:07:27.250 --> 00:07:29.938 and they never progress to multiple myeloma.

NOTE Confidence: 0.9833931

00:07:29.940 --> 00:07:31.380 On the other hand,

NOTE Confidence: 0.9833931

00:07:31.380 --> 00:07:33.180 we have patients who behave

NOTE Confidence: 0.9833931

00:07:33.180 --> 00:07:34.540 more like myeloma,

NOTE Confidence: 0.9833931

00:07:34.540 --> 00:07:36.495 and they actually progressed to

NOTE Confidence: 0.9833931

00:07:36.495 --> 00:07:38.450 those crab symptoms fairly soon

NOTE Confidence: 0.9833931

00:07:38.516 --> 00:07:40.688 after the diagnosis of small drink.

NOTE Confidence: 0.9833931

00:07:40.690 --> 00:07:43.102 So many researchers in the community

NOTE Confidence: 0.9833931

00:07:43.102 --> 00:07:45.168 of myeloma have focused their

NOTE Confidence: 0.9833931

00:07:45.168 --> 00:07:47.496 attention to this group of patients

NOTE Confidence: 0.9833931

00:07:47.496 --> 00:07:49.762 trying to figure out who really

NOTE Confidence: 0.9833931

00:07:49.762 --> 00:07:51.814 should be in the myeloma group.

NOTE Confidence: 0.9833931

00:07:51.820 --> 00:07:54.280 And that's where this slim criteria.

NOTE Confidence: 0.99112105

00:07:54.280 --> 00:07:57.040 That's why they identified

NOTE Confidence: 0.99112105

00:07:57.040 --> 00:07:59.110 three important qualities.

NOTE Confidence: 0.99112105

00:07:59.110 --> 00:08:03.604 Come in, that's. Here so S stands.

NOTE Confidence: 0.99112105

00:08:03.610 --> 00:08:06.235 But sorry, three important qualities

NOTE Confidence: 0.99112105

00:08:06.235 --> 00:08:08.860 that that predicts the rapid

NOTE Confidence: 0.99112105

00:08:08.944 --> 00:08:11.528 progression to multiple myeloma.

NOTE Confidence: 0.99112105

00:08:11.530 --> 00:08:13.826 1S stands for 60% or more plasma

NOTE Confidence: 0.99112105

00:08:13.826 --> 00:08:15.679 cells within the bone marrow.

NOTE Confidence: 0.99112105

00:08:15.680 --> 00:08:18.116 Li stands for a light chain ratio

NOTE Confidence: 0.99112105

00:08:18.116 --> 00:08:20.530 over 100 and M stands for MRI,

NOTE Confidence: 0.99112105

00:08:20.530 --> 00:08:22.260 showing more than one lesion,

NOTE Confidence: 0.99112105

00:08:22.260 --> 00:08:25.012 and this is important 'cause we used to

NOTE Confidence: 0.99112105

00:08:25.012 --> 00:08:28.140 just use X rays to look for these lesions.

NOTE Confidence: 0.99112105

00:08:28.140 --> 00:08:29.870 These holes in the bones.

NOTE Confidence: 0.99112105

00:08:29.870 --> 00:08:32.723 Now we know this is not enough and we

NOTE Confidence: 0.99112105

00:08:32.723 --> 00:08:35.878 need to use more advanced imaging for

NOTE Confidence: 0.99112105

00:08:35.878 --> 00:08:38.480 these particular patients to identify.

NOTE Confidence: 0.99112105

00:08:38.480 --> 00:08:41.130 No lesions that would move

NOTE Confidence: 0.99112105

00:08:41.130 --> 00:08:43.780 you into the myeloma category.

NOTE Confidence: 0.99112105

00:08:43.780 --> 00:08:46.705 So now that we have no diagnosis of myeloma,

NOTE Confidence: 0.99112105

00:08:46.710 --> 00:08:47.914 what do we do?

NOTE Confidence: 0.99112105

00:08:47.914 --> 00:08:49.720 When is our goal for treatment

NOTE Confidence: 0.99112105

00:08:49.791 --> 00:08:50.928 for this disease?

NOTE Confidence: 0.99112105

00:08:50.930 --> 00:08:52.981 So anyone that has myeloma has a

NOTE Confidence: 0.99112105

00:08:52.981 --> 00:08:55.159 certain amount of disease at diagnosis.

NOTE Confidence: 0.99112105

00:08:55.160 --> 00:08:57.110 What we called the disease burden,

NOTE Confidence: 0.99112105

00:08:57.110 --> 00:08:58.730 and we measured this through

NOTE Confidence: 0.99112105

00:08:58.730 --> 00:09:00.026 one of the blood.

NOTE Confidence: 0.99112105

00:09:00.030 --> 00:09:02.305 So we look for that M protein.

NOTE Confidence: 0.99112105

00:09:02.310 --> 00:09:04.218 The bone marrow looked the amount

NOTE Confidence: 0.99112105

00:09:04.218 --> 00:09:06.529 of plasma cells in the bone marrow,

NOTE Confidence: 0.99112105

00:09:06.530 --> 00:09:07.802 and thirdly imaging, right?

NOTE Confidence: 0.99112105

00:09:07.802 --> 00:09:10.760 So we look at the amount of bone disease,

NOTE Confidence: 0.99112105

00:09:10.760 --> 00:09:12.710 but we also look for these.

NOTE Confidence: 0.99112105

00:09:12.710 --> 00:09:14.400 The solid form of myeloma.

NOTE Confidence: 0.99112105

00:09:14.400 --> 00:09:15.280 The PLASMACYTOMAS,

NOTE Confidence: 0.99112105

00:09:15.280 --> 00:09:17.480 which is important to know.

NOTE Confidence: 0.99112105

00:09:17.480 --> 00:09:17.847 And.

NOTE Confidence: 0.99112105

00:09:17.847 --> 00:09:18.214 Yeah,

NOTE Confidence: 0.99112105

00:09:18.214 --> 00:09:21.150 my goal is to kill as many plasma

NOTE Confidence: 0.99112105

00:09:21.243 --> 00:09:24.379 cells as we can to get these deep

NOTE Confidence: 0.99112105

00:09:24.379 --> 00:09:26.960 responses and to keep people in

NOTE Confidence: 0.99112105

00:09:26.960 --> 00:09:29.516 response for as long as possible.

NOTE Confidence: 0.99112105

00:09:29.520 --> 00:09:31.698 Unfortunately, this you know some point.

NOTE Confidence: 0.99112105

00:09:31.700 --> 00:09:33.520 The disease does come back.

NOTE Confidence: 0.99112105

00:09:33.520 --> 00:09:35.998 We do not think myeloma is a

NOTE Confidence: 0.99112105

00:09:35.998 --> 00:09:37.889 curable disease at this time.

NOTE Confidence: 0.99112105

00:09:37.890 --> 00:09:40.080 So when the disease comes back,

NOTE Confidence: 0.99112105

00:09:40.080 --> 00:09:42.348 we do have other treatments and

NOTE Confidence: 0.99112105

00:09:42.348 --> 00:09:44.613 we bring the disease back down

NOTE Confidence: 0.99112105

00:09:44.613 --> 00:09:46.986 and this pattern goes on and on.

NOTE Confidence: 0.98517895

00:09:49.920 --> 00:09:52.580 I want to take just a few minutes to talk

NOTE Confidence: 0.98517895

00:09:52.650 --> 00:09:55.120 about response assessment for myeloma.

NOTE Confidence: 0.98517895

00:09:55.120 --> 00:09:56.420 How we assess the response?

NOTE Confidence: 0.98517895

00:09:56.420 --> 00:09:58.760 So as I mentioned, we look at the blood.

NOTE Confidence: 0.98517895

00:09:58.760 --> 00:10:00.060 We look at this protein.

NOTE Confidence: 0.98517895

00:10:00.060 --> 00:10:02.157 We also look at the bone marrow to look

NOTE Confidence: 0.98517895

00:10:02.157 --> 00:10:04.215 at how many plasma cells are there.

NOTE Confidence: 0.98517895

00:10:04.220 --> 00:10:06.412 So once we start treatment we measure the

NOTE Confidence: 0.98517895

00:10:06.412 --> 00:10:08.610 lab 'cause it's very easy to look at blood

NOTE Confidence: 0.98517895

00:10:08.610 --> 00:10:10.716 work and we see how the protein falls.

NOTE Confidence: 0.98517895

00:10:10.720 --> 00:10:12.450 If you've had a 50% reduction,

NOTE Confidence: 0.98517895

00:10:12.450 --> 00:10:15.030 we call this a partial response.

NOTE Confidence: 0.98517895

00:10:15.030 --> 00:10:16.310 Uhm, if you've had disappearance

NOTE Confidence: 0.98517895

00:10:16.310 --> 00:10:17.855 of this protein and then when

NOTE Confidence: 0.98517895

00:10:17.855 --> 00:10:19.127 you look at the bone marrow,

NOTE Confidence: 0.98517895

00:10:19.130 --> 00:10:21.342 you don't find any of these abnormal

NOTE Confidence: 0.98517895

00:10:21.342 --> 00:10:23.758 plasma cells when you look with your eyes.

NOTE Confidence: 0.98517895

00:10:23.760 --> 00:10:26.824 It's then we call this a complete response,

NOTE Confidence: 0.98517895

00:10:26.830 --> 00:10:28.090 which is great.

NOTE Confidence: 0.98517895

00:10:28.090 --> 00:10:30.610 Nowadays we actually have even more

NOTE Confidence: 0.98517895

00:10:30.610 --> 00:10:32.656 sophisticated tests tests that look

NOTE Confidence: 0.98517895

00:10:32.656 --> 00:10:34.984 at really microscopic level of disease

NOTE Confidence: 0.98517895

00:10:35.054 --> 00:10:37.574 looking at the DNA of the plasma cells,

NOTE Confidence: 0.98517895

00:10:37.580 --> 00:10:40.422 and if we don't find this DNA

NOTE Confidence: 0.98517895

00:10:40.422 --> 00:10:42.640 in the bone marrow's.

NOTE Confidence: 0.98517895

00:10:42.640 --> 00:10:45.580 We call this the deepest response.

NOTE Confidence: 0.98517895

00:10:45.580 --> 00:10:48.030 Call it minimal residual disease,

NOTE Confidence: 0.98517895

00:10:48.030 --> 00:10:50.550 negativity murdy negative negativity

NOTE Confidence: 0.98517895

00:10:50.550 --> 00:10:54.900 and you might have heard about this.

NOTE Confidence: 0.98517895

00:10:54.900 --> 00:10:56.592 This measurement and I just wanted

NOTE Confidence: 0.98517895

00:10:56.592 --> 00:10:58.708 to bring it up here so people

NOTE Confidence: 0.98517895

00:10:58.708 --> 00:11:00.258 understand what this really is

NOTE Confidence: 0.98517895

00:11:00.258 --> 00:11:01.980 and what are we looking at.

NOTE Confidence: 0.98517895

00:11:01.980 --> 00:11:04.068 And we do this in clinic and it's also

NOTE Confidence: 0.98517895

00:11:04.068 --> 00:11:05.415 been investigating clinical trials

NOTE Confidence: 0.98517895

00:11:05.415 --> 00:11:07.872 and this is a very important point.

NOTE Confidence: 0.98642737

00:11:10.760 --> 00:11:13.536 So how do we get these deep responses?

NOTE Confidence: 0.98642737

00:11:13.540 --> 00:11:15.703 How do we choose initial therapy initial

NOTE Confidence: 0.98642737

00:11:15.703 --> 00:11:18.068 therapy in my limits called induction.

NOTE Confidence: 0.98642737

00:11:18.070 --> 00:11:20.662 OK, so we're lucky we have a lot of

NOTE Confidence: 0.98642737

00:11:20.662 --> 00:11:22.646 different drugs and they're very

NOTE Confidence: 0.98642737

00:11:22.646 --> 00:11:24.676 effective at killing plasma cells,

NOTE Confidence: 0.98642737

00:11:24.680 --> 00:11:26.768 and they've been used in induction.

NOTE Confidence: 0.98642737

00:11:26.770 --> 00:11:29.026 I categorized them here under different

NOTE Confidence: 0.98642737

00:11:29.026 --> 00:11:31.589 colors and shapes to signify that each

NOTE Confidence: 0.98642737

00:11:31.589 --> 00:11:34.297 group represents a drug that acts a little

NOTE Confidence: 0.98642737

00:11:34.297 --> 00:11:36.857 bit different in how it kills my llama,

NOTE Confidence: 0.98642737

00:11:36.860 --> 00:11:39.226 and we like to combine the drugs

NOTE Confidence: 0.98642737

00:11:39.226 --> 00:11:40.770 in these different groups.

NOTE Confidence: 0.98642737

00:11:40.770 --> 00:11:43.954 To get the best responses as we can.

NOTE Confidence: 0.98642737

00:11:43.960 --> 00:11:47.075 And I'd say for the most part,

NOTE Confidence: 0.98642737

00:11:47.080 --> 00:11:49.830 we really and think that

NOTE Confidence: 0.98642737

00:11:49.830 --> 00:11:51.480 combining proteasome inhibitors.

NOTE Confidence: 0.98642737

00:11:51.480 --> 00:11:52.638 Juicy down here,

NOTE Confidence: 0.98642737

00:11:52.638 --> 00:11:53.796 along with Imids,

NOTE Confidence: 0.98642737

00:11:53.800 --> 00:11:56.082 a module to her drugs and steroids

NOTE Confidence: 0.98642737

00:11:56.082 --> 00:11:58.707 as being very effective and one of

NOTE Confidence: 0.98642737

00:11:58.707 --> 00:12:01.071 the most commonly used treatments has

NOTE Confidence: 0.98642737

00:12:01.141 --> 00:12:03.859 been Velcade REVLIMID index method zone.

NOTE Confidence: 0.98642737

00:12:03.860 --> 00:12:06.212 I think one of the more recent

NOTE Confidence: 0.98642737

00:12:06.212 --> 00:12:08.120 advances is adding daratumumab,

NOTE Confidence: 0.98642737

00:12:08.120 --> 00:12:10.436 the monoclonal antibody to this regiment,

NOTE Confidence: 0.98642737

00:12:10.440 --> 00:12:13.136 and this is also been shown to have

NOTE Confidence: 0.98642737

00:12:13.136 --> 00:12:15.090 very very great responses,

NOTE Confidence: 0.98642737

00:12:15.090 --> 00:12:18.650 and so you know on one hand the coin one

NOTE Confidence: 0.98642737

00:12:18.739 --> 00:12:22.203 side of the coin I'm telling you about.

NOTE Confidence: 0.98642737

00:12:22.210 --> 00:12:23.840 Obviously want very effective treatment,

NOTE Confidence: 0.98642737

00:12:23.840 --> 00:12:26.000 but we also want to look at the

NOTE Confidence: 0.98642737

00:12:26.000 --> 00:12:28.508 other side and how this dream is

NOTE Confidence: 0.98642737

00:12:28.508 --> 00:12:30.024 affecting the individual right.

NOTE Confidence: 0.98642737

00:12:30.030 --> 00:12:31.980 So these drugs have toxicities have

NOTE Confidence: 0.98642737

00:12:31.980 --> 00:12:34.659 side effects we want to make sure that

NOTE Confidence: 0.98642737

00:12:34.659 --> 00:12:36.880 the patient the individual can tolerate it.

NOTE Confidence: 0.98642737

00:12:36.880 --> 00:12:38.917 So just to give you an example

NOTE Confidence: 0.98642737

00:12:38.917 --> 00:12:40.504 from someone with kidney disease

NOTE Confidence: 0.98642737

00:12:40.504 --> 00:12:42.793 which you can have with my Loma

NOTE Confidence: 0.98642737

00:12:42.793 --> 00:12:44.700 doesn't tolerate limit very well.

NOTE Confidence: 0.98642737

00:12:44.700 --> 00:12:47.634 So in this case we might use cytoxan instead.

NOTE Confidence: 0.98642737

00:12:47.640 --> 00:12:49.929 You know some folks you know four

NOTE Confidence: 0.98642737

00:12:49.929 --> 00:12:52.378 or even three drug books might be.

NOTE Confidence: 0.98642737

00:12:52.380 --> 00:12:53.066 Too difficult,

NOTE Confidence: 0.98642737

00:12:53.066 --> 00:12:55.810 and in that situation we use two drugs,

NOTE Confidence: 0.98642737

00:12:55.810 --> 00:12:58.554 so the bottom line is we want a

NOTE Confidence: 0.98642737

00:12:58.554 --> 00:13:00.269 very effective treatment that will

NOTE Confidence: 0.98642737

00:13:00.270 --> 00:13:01.218 be well tolerated,

NOTE Confidence: 0.98642737

00:13:01.218 --> 00:13:02.798 and that's how we choose

NOTE Confidence: 0.98642737

00:13:02.798 --> 00:13:04.040 our induction treatment.

NOTE Confidence: 0.98690903

00:13:06.370 --> 00:13:08.176 Initial therapy doesn't stop with induction,

NOTE Confidence: 0.98690903

00:13:08.180 --> 00:13:09.690 as many of you know,

NOTE Confidence: 0.98690903

00:13:09.690 --> 00:13:11.496 we have several cycles of induction,

NOTE Confidence: 0.98690903

00:13:11.500 --> 00:13:13.916 but then we move on to different treatments.

NOTE Confidence: 0.98690903

00:13:13.920 --> 00:13:16.143 So for some folks we do recommend high doses

NOTE Confidence: 0.98690903

00:13:16.143 --> 00:13:18.448 of chemotherapy and stem cell transplant,

NOTE Confidence: 0.98690903

00:13:18.450 --> 00:13:20.585 and that's again to deepen the responses

NOTE Confidence: 0.98690903

00:13:20.585 --> 00:13:22.976 and prolong the time you stay in response.

NOTE Confidence: 0.98690903

00:13:22.980 --> 00:13:25.698 But this is.

NOTE Confidence: 0.98690903

00:13:25.700 --> 00:13:27.372 Cancer treatment with significant

NOTE Confidence: 0.98690903

00:13:27.372 --> 00:13:29.880 side effects and that recovery time

NOTE Confidence: 0.98690903

00:13:29.949 --> 00:13:31.827 so it's not meant for everyone.

NOTE Confidence: 0.98690903

00:13:31.830 --> 00:13:34.120 It is something to decide

NOTE Confidence: 0.98690903

00:13:34.120 --> 00:13:35.494 on individual basis.

NOTE Confidence: 0.98690903

00:13:35.500 --> 00:13:38.276 Regardless, if you get a transplant or not,

NOTE Confidence: 0.98690903

00:13:38.280 --> 00:13:40.536 after induction you move onto to

NOTE Confidence: 0.98690903

00:13:40.536 --> 00:13:42.040 maintenance and maintenance is

NOTE Confidence: 0.98690903

00:13:42.107 --> 00:13:44.200 really you know what it stands for.

NOTE Confidence: 0.98690903

00:13:44.200 --> 00:13:47.000 It's meant to maintain the the disease and

NOTE Confidence: 0.98690903

00:13:47.000 --> 00:13:49.768 are good levels so it doesn't come up,

NOTE Confidence: 0.98690903

00:13:49.770 --> 00:13:52.164 but meant to be well tolerated so

NOTE Confidence: 0.98690903

00:13:52.164 --> 00:13:54.289 you can continue this for years.

NOTE Confidence: 0.98690903

00:13:54.290 --> 00:13:56.618 So often we use one drug or maybe

NOTE Confidence: 0.98690903

00:13:56.618 --> 00:13:58.470 2 for some situations,

NOTE Confidence: 0.98690903

00:13:58.470 --> 00:14:01.718 or the disease might behave a little

NOTE Confidence: 0.98690903

00:14:01.718 --> 00:14:04.174 bit more aggressively and we continue

NOTE Confidence: 0.98690903

00:14:04.174 --> 00:14:06.870 this for as long as as we can.

NOTE Confidence: 0.98690903

00:14:06.870 --> 00:14:07.866 As I mentioned,

NOTE Confidence: 0.98690903

00:14:07.866 --> 00:14:09.858 at some point the disease does

NOTE Confidence: 0.98690903

00:14:09.858 --> 00:14:12.819 come back and we do need to think

NOTE Confidence: 0.98690903

00:14:12.819 --> 00:14:13.914 about different treatments.

NOTE Confidence: 0.98690903

00:14:13.920 --> 00:14:16.736 So how do we decide treatment at relapse?

NOTE Confidence: 0.98690903

00:14:16.740 --> 00:14:18.858 Well, we choose a different combination.

NOTE Confidence: 0.98690903

00:14:18.860 --> 00:14:19.217 Again,

NOTE Confidence: 0.98690903

00:14:19.217 --> 00:14:21.002 we'd like to choose combinations

NOTE Confidence: 0.98690903

00:14:21.002 --> 00:14:23.100 from different classes of drugs here,

NOTE Confidence: 0.98690903

00:14:23.100 --> 00:14:25.656 so I added a few to my list to

NOTE Confidence: 0.98690903

00:14:25.656 --> 00:14:27.329 my treatment menu.

NOTE Confidence: 0.98690903

00:14:27.330 --> 00:14:29.100 Here we have palm list,

NOTE Confidence: 0.98690903

00:14:29.100 --> 00:14:31.916 which is the 2nd generation of the relevant.

NOTE Confidence: 0.98690903

00:14:31.920 --> 00:14:34.391 That meant we also have other other

NOTE Confidence: 0.98690903

00:14:34.391 --> 00:14:35.802 monoclonal antibodies, like below,

NOTE Confidence: 0.98690903

00:14:35.802 --> 00:14:37.557 and we basically choose something

NOTE Confidence: 0.98690903

00:14:37.557 --> 00:14:39.340 you have not had before.

NOTE Confidence: 0.98690903

00:14:39.340 --> 00:14:41.362 Often we use pomalidomide as the

NOTE Confidence: 0.98690903

00:14:41.362 --> 00:14:43.220 second it you include pummel,

NOTE Confidence: 0.98690903

00:14:43.220 --> 00:14:44.704 admired in the combination.

NOTE Confidence: 0.98690903

00:14:44.704 --> 00:14:46.886 Second treatment, and then if you

NOTE Confidence: 0.98690903

00:14:46.886 --> 00:14:49.040 need a third or fourth treatment,

NOTE Confidence: 0.98690903

00:14:49.040 --> 00:14:51.164 we're very lucky that our treatment

NOTE Confidence: 0.98690903

00:14:51.164 --> 00:14:54.060 menu is growing and is continuing to grow.

NOTE Confidence: 0.98690903

00:14:54.060 --> 00:14:58.010 So we have selling X or we have a blunt wrap.

NOTE Confidence: 0.98690903

00:14:58.010 --> 00:15:00.500 We have now male flap.

NOTE Confidence: 0.98690903

00:15:00.500 --> 00:15:04.168 And most recently, the cartee avec ma.

NOTE Confidence: 0.98690903

00:15:04.170 --> 00:15:06.098 And least, but not.

NOTE Confidence: 0.98690903

00:15:06.098 --> 00:15:06.580 Sorry,

NOTE Confidence: 0.98690903

00:15:06.580 --> 00:15:08.986 last but not least clinical trials,

NOTE Confidence: 0.98690903

00:15:08.990 --> 00:15:11.657 so we have an assortment of clinical

NOTE Confidence: 0.98690903

00:15:11.657 --> 00:15:15.000 trials where it gives opportunity to try new,

NOTE Confidence: 0.98690903

00:15:15.000 --> 00:15:16.604 very possibly very effective

NOTE Confidence: 0.98690903

00:15:16.604 --> 00:15:17.807 treatment for myeloma.

NOTE Confidence: 0.98690903

00:15:17.810 --> 00:15:20.421 So with that I'd like to conclude

NOTE Confidence: 0.98690903

00:15:20.421 --> 00:15:23.312 my section of the talk and move

NOTE Confidence: 0.98690903

00:15:23.312 --> 00:15:25.427 on to doctor Sabrina Browning.

NOTE Confidence: 0.98690903

00:15:25.430 --> 00:15:27.872 He will talk about the details

NOTE Confidence: 0.98690903

00:15:27.872 --> 00:15:30.345 of these newer agents that we

NOTE Confidence: 0.98690903

00:15:30.345 --> 00:15:32.245 have for to treat myeloma.

NOTE Confidence: 0.9597568

00:15:46.870 --> 00:15:49.102 Great, OK, so good evening everyone

NOTE Confidence: 0.9597568

00:15:49.102 --> 00:15:51.678 and thank you again for joining us.

NOTE Confidence: 0.9597568

00:15:51.680 --> 00:15:53.804 Come again. My name is Sabrina

NOTE Confidence: 0.9597568

00:15:53.804 --> 00:15:55.750 Browning as Doctor Barr stated.

NOTE Confidence: 0.9597568

00:15:55.750 --> 00:15:58.684 I am one of the doctors in our multiple

NOTE Confidence: 0.9597568

00:15:58.684 --> 00:16:01.300 myeloma gammopathy program here at Yale.

NOTE Confidence: 0.9597568

00:16:01.300 --> 00:16:03.508 So in this next part of our discussion

NOTE Confidence: 0.9597568

00:16:03.508 --> 00:16:06.051 I will review recent advances in the

NOTE Confidence: 0.9597568

00:16:06.051 --> 00:16:07.981 treatment of multiple myeloma and

NOTE Confidence: 0.9597568

00:16:08.046 --> 00:16:10.656 specifically will focus on the newly

NOTE Confidence: 0.9597568

00:16:10.656 --> 00:16:12.396 approved medications for patients.

NOTE Confidence: 0.9597568

00:16:12.400 --> 00:16:14.578 Either that have relapsed so with

NOTE Confidence: 0.9597568

00:16:14.578 --> 00:16:16.930 recurrence of their disease or refractory.

NOTE Confidence: 0.9597568

00:16:16.930 --> 00:16:18.078 They're not responding to

NOTE Confidence: 0.9597568

00:16:18.078 --> 00:16:18.939 their current treatment.

NOTE Confidence: 0.99019223

00:16:24.370 --> 00:16:26.239 And I have no disclosures to report.

NOTE Confidence: 0.9801597

00:16:28.470 --> 00:16:30.745 So fortunately, as a result of the

NOTE Confidence: 0.9801597

00:16:30.745 --> 00:16:32.589 introduction of new medications and

NOTE Confidence: 0.9801597

00:16:32.589 --> 00:16:34.609 combinations of my Loma agents,

NOTE Confidence: 0.9801597

00:16:34.610 --> 00:16:36.415 as stated by Doctor Bar

NOTE Confidence: 0.9801597

00:16:36.415 --> 00:16:38.220 over the last few decades,

NOTE Confidence: 0.9801597

00:16:38.220 --> 00:16:40.130 there has been significant improvement

NOTE Confidence: 0.9801597

00:16:40.130 --> 00:16:42.550 both in prognosis and quality of life.

NOTE Confidence: 0.9801597

00:16:42.550 --> 00:16:44.355 For those letter living with

NOTE Confidence: 0.9801597

00:16:44.355 --> 00:16:46.160 multiple myeloma, the major classes

NOTE Confidence: 0.9801597

00:16:46.160 --> 00:16:47.960 of medications used in myeloma,

NOTE Confidence: 0.9801597

00:16:47.960 --> 00:16:50.126 as touched upon by Doctor Bar,

NOTE Confidence: 0.9801597

00:16:50.130 --> 00:16:53.379 which may be familiar to you or listed here,

NOTE Confidence: 0.9801597

00:16:53.380 --> 00:16:55.185 and they include the immunomodulatory

NOTE Confidence: 0.9801597

00:16:55.185 --> 00:16:56.990 agents or imids proteasome inhibitors,

NOTE Confidence: 0.9801597

00:16:56.990 --> 00:16:58.498 or Pi monoclonal antibodies.

NOTE Confidence: 0.9801597

00:16:58.498 --> 00:17:00.383 Alkylating agents and the histone

NOTE Confidence: 0.9801597

00:17:00.383 --> 00:17:01.865 DSS release inhibitor referred

NOTE Confidence: 0.9801597

00:17:01.865 --> 00:17:03.959 to as put in a panobinostat.

NOTE Confidence: 0.9801597

00:17:03.960 --> 00:17:06.840 These medications have been or are

NOTE Confidence: 0.9801597

00:17:06.840 --> 00:17:09.628 currently being studied as a part of.

NOTE Confidence: 0.9801597

00:17:09.630 --> 00:17:11.082 Combination regimens and many

NOTE Confidence: 0.9801597

00:17:11.082 --> 00:17:12.897 are targeting earlier in disease

NOTE Confidence: 0.9801597

00:17:12.897 --> 00:17:14.630 course as Doctor Barr mentioned,

NOTE Confidence: 0.9801597

00:17:14.630 --> 00:17:16.586 our treatment going myeloma is really

NOTE Confidence: 0.9801597

00:17:16.586 --> 00:17:19.498 to achieve what we refer to as deep or

NOTE Confidence: 0.9801597

00:17:19.498 --> 00:17:21.590 maximum responses to therapy that are

NOTE Confidence: 0.9801597

00:17:21.590 --> 00:17:23.546 prolonged without disease progression.

NOTE Confidence: 0.9801597

00:17:23.550 --> 00:17:25.692 And while we won't review this

NOTE Confidence: 0.9801597

00:17:25.692 --> 00:17:27.120 agent in detail today,

NOTE Confidence: 0.9801597

00:17:27.120 --> 00:17:29.058 I've signaled Isatuximab in the chart

NOTE Confidence: 0.9801597

00:17:29.058 --> 00:17:31.178 here as a more recently approved

NOTE Confidence: 0.9801597

00:17:31.178 --> 00:17:33.452 antibody that targets a protein known

NOTE Confidence: 0.9801597

00:17:33.452 --> 00:17:36.405 as CD 38 found on immune cells and

NOTE Confidence: 0.9801597

00:17:36.405 --> 00:17:38.556 myeloma cells and isatuximab is now

NOTE Confidence: 0.9801597

00:17:38.556 --> 00:17:40.734 approved for use in combination with.

NOTE Confidence: 0.9801597

00:17:40.740 --> 00:17:42.116 Both pomalidomide and dexamethasone,

NOTE Confidence: 0.9801597

00:17:42.116 --> 00:17:43.836 as well as with carfilzomib

NOTE Confidence: 0.9801597

00:17:43.836 --> 00:17:44.940 and dexamethasone,

NOTE Confidence: 0.9801597

00:17:44.940 --> 00:17:46.850 and is being studied further

NOTE Confidence: 0.9801597

00:17:46.850 --> 00:17:48.378 in additional clinical trials.

NOTE Confidence: 0.9749668

00:17:50.490 --> 00:17:52.122 So what has remained a challenge

NOTE Confidence: 0.9749668

00:17:52.122 --> 00:17:53.655 and an area where improvements

NOTE Confidence: 0.9749668

00:17:53.655 --> 00:17:55.971 are essential is the treatment of

NOTE Confidence: 0.9749668

00:17:55.971 --> 00:17:57.876 individuals with myeloma who have

NOTE Confidence: 0.9749668

00:17:57.876 --> 00:17:59.586 received multiple lines of therapy,

NOTE Confidence: 0.9749668

00:17:59.590 --> 00:18:01.215 particularly those who are no

NOTE Confidence: 0.9749668

00:18:01.215 --> 00:18:02.840 longer showing response to the

NOTE Confidence: 0.9749668

00:18:02.902 --> 00:18:04.637 P eyes or proteasome inhibitors.

NOTE Confidence: 0.9749668

00:18:04.640 --> 00:18:06.188 The imids immunomodulatory agents

NOTE Confidence: 0.9749668

00:18:06.188 --> 00:18:08.123 or the monoclonal antibodies and

NOTE Confidence: 0.9749668

00:18:08.123 --> 00:18:10.037 this is referred to as a triple,

NOTE Confidence: 0.9749668

00:18:10.040 --> 00:18:11.048 reclass refractory disease,

NOTE Confidence: 0.9749668

00:18:11.048 --> 00:18:13.064 and as you can see here,

NOTE Confidence: 0.9749668

00:18:13.070 --> 00:18:14.434 in addition to isatuximab,

NOTE Confidence: 0.9749668

00:18:14.434 --> 00:18:16.480 there have been four other agents

NOTE Confidence: 0.9749668

00:18:16.545 --> 00:18:18.659 approved over the last two years for

NOTE Confidence: 0.9749668

00:18:18.659 --> 00:18:20.590 the treatment of individuals with.

NOTE Confidence: 0.9749668

00:18:20.590 --> 00:18:22.576 Relapsed or refractory myeloma and this

NOTE Confidence: 0.9749668

00:18:22.576 --> 00:18:23.900 really presents great opportunities

NOTE Confidence: 0.9749668

00:18:23.946 --> 00:18:25.578 and promise for our myeloma patients.

NOTE Confidence: 0.9749668

00:18:25.580 --> 00:18:27.680 And so we'll review each of these

NOTE Confidence: 0.9749668

00:18:27.680 --> 00:18:29.330 medications and in more detail,

NOTE Confidence: 0.9749668

00:18:29.330 --> 00:18:33.029 and we'll have time at the end of our

NOTE Confidence: 0.9749668

00:18:33.029 --> 00:18:36.190 discussion for any questions that come up.

NOTE Confidence: 0.9749668

00:18:36.190 --> 00:18:38.444 So firstly is selinexor which is a

NOTE Confidence: 0.9749668

00:18:38.444 --> 00:18:40.382 small molecule that binds and blocks

NOTE Confidence: 0.9749668

00:18:40.382 --> 00:18:42.904 exportin one and export and one is a

NOTE Confidence: 0.9749668

00:18:42.904 --> 00:18:44.902 protein that's found on myeloma cells

NOTE Confidence: 0.9749668

00:18:44.902 --> 00:18:47.378 that can promote the growth of tumor

NOTE Confidence: 0.9749668

00:18:47.378 --> 00:18:49.580 by removing proteins from the myeloma

NOTE Confidence: 0.9749668

00:18:49.648 --> 00:18:52.416 cells that are meant to suppress the tumor.

NOTE Confidence: 0.9749668

00:18:52.420 --> 00:18:52.719 However,

NOTE Confidence: 0.9749668

00:18:52.719 --> 00:18:55.111 if you see here in the in the

NOTE Confidence: 0.9749668

00:18:55.111 --> 00:18:57.338 figure on the right when selinexor,

NOTE Confidence: 0.9749668

00:18:57.340 --> 00:18:59.685 which is also referred to as selective

NOTE Confidence: 0.9749668

00:18:59.685 --> 00:19:01.600 inhibitor of nuclear export or sign,

NOTE Confidence: 0.9749668

00:19:01.600 --> 00:19:03.240 is bound to this exportin.

NOTE Confidence: 0.9749668

00:19:03.240 --> 00:19:03.591 One.

NOTE Confidence: 0.9749668

00:19:03.591 --> 00:19:05.346 The tumor suppressors can accumulate

NOTE Confidence: 0.9749668

00:19:05.346 --> 00:19:08.051 in the nucleus of the cell and the

NOTE Confidence: 0.9749668

00:19:08.051 --> 00:19:09.905 body then can eliminate tumor cells

NOTE Confidence: 0.9749668

00:19:09.973 --> 00:19:11.757 while preserving normal cells.

NOTE Confidence: 0.9749668

00:19:11.760 --> 00:19:14.119 Selinexor is the first drug in this

NOTE Confidence: 0.9749668

00:19:14.119 --> 00:19:16.135 class of medications and is being

NOTE Confidence: 0.9749668

00:19:16.135 --> 00:19:18.326 studied in other blood cancers as well.

NOTE Confidence: 0.9749668

00:19:18.330 --> 00:19:19.455 In multiple myeloma,

NOTE Confidence: 0.9749668

00:19:19.455 --> 00:19:21.705 selinexor is approved as an oral

NOTE Confidence: 0.9749668

00:19:21.705 --> 00:19:23.897 pill at a dose of 80 milligrams,

NOTE Confidence: 0.9749668

00:19:23.900 --> 00:19:26.357 taken twice per week with the steroid

NOTE Confidence: 0.9749668

00:19:26.357 --> 00:19:28.216 dexamethasone and this is for

NOTE Confidence: 0.9749668

00:19:28.216 --> 00:19:30.061 individuals with relapsed or refractory

NOTE Confidence: 0.9749668

00:19:30.061 --> 00:19:32.161 myeloma who have received at least

NOTE Confidence: 0.9749668

00:19:32.161 --> 00:19:34.331 four prior lines of therapy and are

NOTE Confidence: 0.9749668

00:19:34.340 --> 00:19:36.335 no longer responding to at least two

NOTE Confidence: 0.9749668

00:19:36.335 --> 00:19:38.509 of the pies previously discussed.

NOTE Confidence: 0.9749668

00:19:38.510 --> 00:19:41.294 At least two images and an anti CD.

NOTE Confidence: 0.9749668

00:19:41.300 --> 00:19:42.628 38 monoclonal antibody selinexor

NOTE Confidence: 0.9749668

00:19:42.628 --> 00:19:45.052 is also approved at a dose of

NOTE Confidence: 0.9749668

00:19:45.052 --> 00:19:47.278 100 milligrams once per week with

NOTE Confidence: 0.9749668

00:19:47.278 --> 00:19:48.391 Bortezomib and dexamethasone.

NOTE Confidence: 0.9749668

00:19:48.400 --> 00:19:49.094 For patients,

NOTE Confidence: 0.9749668

00:19:49.094 --> 00:19:51.176 again with three lobster refractory myeloma.

NOTE Confidence: 0.9749668

00:19:51.180 --> 00:19:52.164 But this time,

NOTE Confidence: 0.9749668

00:19:52.164 --> 00:19:54.460 those who have received only at least

NOTE Confidence: 0.9749668

00:19:54.524 --> 00:19:56.946 one prior line of therapy and these

NOTE Confidence: 0.9749668

00:19:56.946 --> 00:19:59.497 approvals are based on the storm and

NOTE Confidence: 0.9749668

00:19:59.497 --> 00:20:01.168 Boston clinical trials, respectively,

NOTE Confidence: 0.9749668

00:20:01.168 --> 00:20:04.108 which we'll talk more about.

NOTE Confidence: 0.9749668

00:20:04.110 --> 00:20:06.564 So the storm clinical trial evaluated

NOTE Confidence: 0.9749668

00:20:06.564 --> 00:20:09.566 122 patients in the US in Europe

NOTE Confidence: 0.9749668

00:20:09.566 --> 00:20:11.716 who had this triple refractory

NOTE Confidence: 0.9749668

00:20:11.716 --> 00:20:13.755 multiple myeloma that I mentioned

NOTE Confidence: 0.9749668

00:20:13.755 --> 00:20:16.317 and had received a median of seven

NOTE Confidence: 0.9749668

00:20:16.320 --> 00:20:18.276 lines of prior treatment.

NOTE Confidence: 0.9749668

00:20:18.276 --> 00:20:21.210 These individuals were given oral selinexor,

NOTE Confidence: 0.9749668

00:20:21.210 --> 00:20:23.240 80 milligrams and dexamethasone 20

NOTE Confidence: 0.9749668

00:20:23.240 --> 00:20:25.690 milligrams, both twice twice a week,

NOTE Confidence: 0.9749668

00:20:25.690 --> 00:20:28.318 and 26% of these patients achieved

NOTE Confidence: 0.9749668

00:20:28.318 --> 00:20:31.225 what doctor bar defined as a partial

NOTE Confidence: 0.9749668

00:20:31.225 --> 00:20:33.594 response or more than 50% improvement

NOTE Confidence: 0.9749668

00:20:33.594 --> 00:20:35.890 in their monoclonal protein.

NOTE Confidence: 0.9749668

00:20:35.890 --> 00:20:38.570 And while 30 and end of this group,

NOTE Confidence: 0.9749668

00:20:38.570 --> 00:20:40.824 39% of patients had at least a

NOTE Confidence: 0.9749668

00:20:40.824 --> 00:20:42.223 minimal response and responses

NOTE Confidence: 0.9749668

00:20:42.223 --> 00:20:44.419 overtime in those patients who did

NOTE Confidence: 0.9749668

00:20:44.419 --> 00:20:46.798 have at least a partial response or

NOTE Confidence: 0.9749668

00:20:46.798 --> 00:20:49.318 seen in the figure here at the left,

NOTE Confidence: 0.9749668

00:20:49.318 --> 00:20:51.412 the median duration of the response

NOTE Confidence: 0.9749668

00:20:51.412 --> 00:20:52.110 or the

NOTE Confidence: 0.98759824

00:20:52.177 --> 00:20:54.122 median time that the response

NOTE Confidence: 0.98759824

00:20:54.122 --> 00:20:56.067 lasted was about 4.4 months.

NOTE Confidence: 0.98759824

00:20:56.070 --> 00:20:59.062 And then the second trial with Selinexor is

NOTE Confidence: 0.98759824

00:20:59.062 --> 00:21:01.459 the multicenter phase three Boston trial,

NOTE Confidence: 0.98759824

00:21:01.460 --> 00:21:04.616 which looked at 402 myeloma patients.

NOTE Confidence: 0.98759824

00:21:04.620 --> 00:21:06.516 That were treated with one to

NOTE Confidence: 0.98759824

00:21:06.516 --> 00:21:08.360 three prior lines of therapy,

NOTE Confidence: 0.98759824

00:21:08.360 --> 00:21:10.448 and these patients were randomly assigned

NOTE Confidence: 0.98759824

00:21:10.448 --> 00:21:13.202 to get either selling X or 100 milligrams

NOTE Confidence: 0.98759824

00:21:13.202 --> 00:21:15.158 once per week combined with Bortezomib.

NOTE Confidence: 0.98759824

00:21:15.160 --> 00:21:16.860 The proteasome inhibitor and dexamethasone.

NOTE Confidence: 0.98759824

00:21:16.860 --> 00:21:18.740 The steroid or Bortezomib and

NOTE Confidence: 0.98759824

00:21:18.740 --> 00:21:20.620 dexamethasone alone and what's shown

NOTE Confidence: 0.98759824

00:21:20.683 --> 00:21:22.888 here in the figure on the right is that

NOTE Confidence: 0.98759824

00:21:22.888 --> 00:21:25.018 the patients who received selinexor,

NOTE Confidence: 0.98759824

00:21:25.020 --> 00:21:27.060 so they sell an extra group,

NOTE Confidence: 0.98759824

00:21:27.060 --> 00:21:29.100 had a longer time without disease.

NOTE Confidence: 0.98759824

00:21:29.100 --> 00:21:31.438 Progression at a median of 13.9 months

NOTE Confidence: 0.98759824

00:21:31.438 --> 00:21:34.087 when compared to the group who only

NOTE Confidence: 0.98759824

00:21:34.087 --> 00:21:35.667 got Bortezomib and dexamethasone.

NOTE Confidence: 0.98759824

00:21:35.670 --> 00:21:38.184 Where the progression at the time

NOTE Confidence: 0.98759824

00:21:38.184 --> 00:21:40.660 without progression was about 9.5 months.

NOTE Confidence: 0.98759824

00:21:40.660 --> 00:21:43.072 The more common side effects observed

NOTE Confidence: 0.98759824

00:21:43.072 --> 00:21:46.021 with selinexor in both of these clinical

NOTE Confidence: 0.98759824

00:21:46.021 --> 00:21:48.565 trials and in practice include fatigue.

NOTE Confidence: 0.98759824

00:21:48.570 --> 00:21:50.650 Gastrointestinal symptoms such as nausea,

NOTE Confidence: 0.98759824

00:21:50.650 --> 00:21:54.040 infections, and low blood counts.

NOTE Confidence: 0.98759824

00:21:54.040 --> 00:21:55.472 Thrombocytopenia or low platelet

NOTE Confidence: 0.98759824

00:21:55.472 --> 00:21:56.546 count in particular,

NOTE Confidence: 0.98759824

00:21:56.550 --> 00:21:59.430 was seen in 73% of patients and storm,

NOTE Confidence: 0.98759824

00:21:59.430 --> 00:22:01.220 although in the Boston trial,

NOTE Confidence: 0.98759824

00:22:01.220 --> 00:22:03.726 even though patients had low platelet counts,

NOTE Confidence: 0.98759824

00:22:03.730 --> 00:22:06.142 they did not have significant bleeding

NOTE Confidence: 0.98759824

00:22:06.142 --> 00:22:08.350 events or complications with bleeding.

NOTE Confidence: 0.98759824

00:22:08.350 --> 00:22:08.705 Notably,

NOTE Confidence: 0.98759824

00:22:08.705 --> 00:22:10.835 the use of anti nausea medication,

NOTE Confidence: 0.98759824

00:22:10.840 --> 00:22:13.102 so medications to try to prevent

NOTE Confidence: 0.98759824

00:22:13.102 --> 00:22:15.054 nausha is really important with

NOTE Confidence: 0.98759824

00:22:15.054 --> 00:22:16.939 selinexor and one specific approach

NOTE Confidence: 0.98759824

00:22:16.939 --> 00:22:19.414 that has been used by our group

NOTE Confidence: 0.98759824

00:22:19.414 --> 00:22:21.514 and others is to give a medication

NOTE Confidence: 0.98759824

00:22:21.520 --> 00:22:23.300 called olanzapine or Zyprexa daily.

NOTE Confidence: 0.98759824

00:22:23.300 --> 00:22:25.838 With treatment to try and prevent

NOTE Confidence: 0.98759824

00:22:25.838 --> 00:22:28.120 the onset of significant nausha.

NOTE Confidence: 0.98759824

00:22:28.120 --> 00:22:29.915 Side effects from selinexor do

NOTE Confidence: 0.98759824

00:22:29.915 --> 00:22:32.148 appear to improve as after initial

NOTE Confidence: 0.98759824

00:22:32.148 --> 00:22:34.008 treatment or as treatment continues

NOTE Confidence: 0.98759824

00:22:34.008 --> 00:22:36.810 and they can be well managed with

NOTE Confidence: 0.98759824

00:22:36.810 --> 00:22:38.895 supportive care and are reversible.

NOTE Confidence: 0.98759824

00:22:38.900 --> 00:22:40.830 If this selinexor is stopped.

NOTE Confidence: 0.969811

00:22:43.590 --> 00:22:45.726 The next agent will discuss is

NOTE Confidence: 0.969811

00:22:45.726 --> 00:22:47.150 Bill Lanthanum Alpha Dowtin,

NOTE Confidence: 0.969811

00:22:47.150 --> 00:22:50.110 which is a medication made up of an

NOTE Confidence: 0.969811

00:22:50.110 --> 00:22:52.778 antibody that's attached to a drug that's

NOTE Confidence: 0.969811

00:22:52.778 --> 00:22:55.642 toxic or can kill myeloma cells and as

NOTE Confidence: 0.969811

00:22:55.642 --> 00:22:58.183 seen in the figure here on the right,

NOTE Confidence: 0.969811

00:22:58.183 --> 00:23:00.654 it binds what's referred to as B

NOTE Confidence: 0.969811

00:23:00.654 --> 00:23:02.460 cell maturation antigen ORB may,

NOTE Confidence: 0.969811

00:23:02.460 --> 00:23:04.900 which is a protein on the surface of

NOTE Confidence: 0.969811

00:23:04.900 --> 00:23:06.729 myeloma cells that overexpressed.

NOTE Confidence: 0.969811

00:23:06.730 --> 00:23:09.578 So there's more than than in normal cells,

NOTE Confidence: 0.969811

00:23:09.580 --> 00:23:11.330 and this allows for delivery

NOTE Confidence: 0.969811

00:23:11.330 --> 00:23:13.570 of mpid open into the cells.

NOTE Confidence: 0.969811

00:23:13.570 --> 00:23:15.630 Resulting in interruption or stopping

NOTE Confidence: 0.969811

00:23:15.630 --> 00:23:18.450 of cell division and myeloma cell death.

NOTE Confidence: 0.969811

00:23:18.450 --> 00:23:20.520 Blanton on methadone and also

NOTE Confidence: 0.969811

00:23:20.520 --> 00:23:23.047 improves or enhances the body's own

NOTE Confidence: 0.969811

00:23:23.047 --> 00:23:25.369 immune spot response are the immunes

NOTE Confidence: 0.969811

00:23:25.369 --> 00:23:27.819 ability to fight off myeloma cells.

NOTE Confidence: 0.969811

00:23:27.820 --> 00:23:31.068 Blanton AB is approved as a single agent,

NOTE Confidence: 0.969811

00:23:31.070 --> 00:23:33.314 a single medication at a dose

NOTE Confidence: 0.969811

00:23:33.314 --> 00:23:35.550 of 2.5 milligrams per kilogram,

NOTE Confidence: 0.969811

00:23:35.550 --> 00:23:37.174 which is administered through

NOTE Confidence: 0.969811

00:23:37.174 --> 00:23:37.986 intravenous infusion.

NOTE Confidence: 0.969811

00:23:37.990 --> 00:23:39.434 Once every three weeks,

NOTE Confidence: 0.969811

00:23:39.434 --> 00:23:41.600 and this again is approved for

NOTE Confidence: 0.969811

00:23:41.673 --> 00:23:44.148 patients with relapsed or refractory.

NOTE Confidence: 0.969811

00:23:44.150 --> 00:23:44.870 Hi Wilma,

NOTE Confidence: 0.969811

00:23:44.870 --> 00:23:47.030 who have received at least four

NOTE Confidence: 0.969811

00:23:47.030 --> 00:23:48.830 prior therapies including Apiai,

NOTE Confidence: 0.969811

00:23:48.830 --> 00:23:50.780 Imid and an anti CD.

NOTE Confidence: 0.969811

00:23:50.780 --> 00:23:52.930 38 monoclonal antibody and this

NOTE Confidence: 0.969811

00:23:52.930 --> 00:23:55.080 is based off effectiveness that

NOTE Confidence: 0.969811

00:23:55.154 --> 00:23:57.408 was shown in the dream two study.

NOTE Confidence: 0.9412589

00:24:01.250 --> 00:24:03.524 So the dream two trial evaluated

NOTE Confidence: 0.9412589

00:24:03.524 --> 00:24:06.069 this first anti BCMA antibody drug

NOTE Confidence: 0.9412589

00:24:06.069 --> 00:24:08.464 conjugate in 196 patients with

NOTE Confidence: 0.9412589

00:24:08.464 --> 00:24:10.801 relapsed or refractory myeloma who

NOTE Confidence: 0.9412589

00:24:10.801 --> 00:24:13.699 had received at least three lines of

NOTE Confidence: 0.9412589

00:24:13.699 --> 00:24:15.852 treatment prior and were refractory

NOTE Confidence: 0.9412589

00:24:15.852 --> 00:24:18.840 or were no longer responding to the.

NOTE Confidence: 0.9412589

00:24:18.840 --> 00:24:21.414 Again, the three categories of medications

NOTE Confidence: 0.9412589

00:24:21.414 --> 00:24:23.896 we talked about frequently, the P,

NOTE Confidence: 0.9412589

00:24:23.896 --> 00:24:26.194 imid or immunomodulatory agent and an

NOTE Confidence: 0.9412589

00:24:26.194 --> 00:24:29.542 anti CD 38 monoclonal antibody and these

NOTE Confidence: 0.9412589

00:24:29.542 --> 00:24:32.047 patients studies were rent studied.

NOTE Confidence: 0.9412589

00:24:32.050 --> 00:24:33.358 End of my story.

NOTE Confidence: 0.9412589

00:24:33.358 --> 00:24:35.320 See if either a 2.5 milligram

NOTE Confidence: 0.9412589

00:24:35.395 --> 00:24:37.699 per kilogram dose of Balanta map

NOTE Confidence: 0.9412589

00:24:37.699 --> 00:24:39.950 or 3.4 milligrams per kilogram,

NOTE Confidence: 0.9412589

00:24:39.950 --> 00:24:41.830 and this was given intravenous,

NOTE Confidence: 0.9412589

00:24:41.830 --> 00:24:43.330 intravenously or through through

NOTE Confidence: 0.9412589

00:24:43.330 --> 00:24:45.205 an Ivy every three weeks.

NOTE Confidence: 0.9412589

00:24:45.210 --> 00:24:47.085 The overall response rate in

NOTE Confidence: 0.9412589

00:24:47.085 --> 00:24:48.585 the dose that's recommended,

NOTE Confidence: 0.9412589

00:24:48.590 --> 00:24:51.229 which is the 2.5 milligrams per kilogram,

NOTE Confidence: 0.9412589

00:24:51.230 --> 00:24:51.960 was 31%,

NOTE Confidence: 0.9412589

00:24:51.960 --> 00:24:54.515 and 60% of these patients who responded

NOTE Confidence: 0.9412589

00:24:54.515 --> 00:24:57.619 had at least a very good partial response,

NOTE Confidence: 0.9412589

00:24:57.620 --> 00:25:00.044 which is a improvement in the

NOTE Confidence: 0.9412589

00:25:00.044 --> 00:25:02.100 monoclonal protein of more than.

NOTE Confidence: 0.9412589

00:25:02.100 --> 00:25:02.732 90%.

NOTE Confidence: 0.9412589

00:25:02.732 --> 00:25:05.892 Overall response rate was also

NOTE Confidence: 0.9412589

00:25:05.892 --> 00:25:08.875 38.5% in the the population of

NOTE Confidence: 0.9412589

00:25:08.875 --> 00:25:11.220 patients who had higher risk

NOTE Confidence: 0.9412589

00:25:11.310 --> 00:25:14.320 genetic features to their myeloma.

NOTE Confidence: 0.9412589

00:25:14.320 --> 00:25:16.120 And in this population is

NOTE Confidence: 0.9412589

00:25:16.120 --> 00:25:17.920 often a harder to treat,

NOTE Confidence: 0.9412589

00:25:17.920 --> 00:25:20.014 and the median time to response

NOTE Confidence: 0.9412589

00:25:20.014 --> 00:25:22.240 for Balanta map was 1.4 months,

NOTE Confidence: 0.9412589

00:25:22.240 --> 00:25:24.040 with 73% of those patients

NOTE Confidence: 0.9412589

00:25:24.040 --> 00:25:25.480 who achieved a response.

NOTE Confidence: 0.9412589

00:25:25.480 --> 00:25:27.340 Having it maintained at least

NOTE Confidence: 0.9412589

00:25:27.340 --> 00:25:30.169 for six months at the time that

NOTE Confidence: 0.9412589

00:25:30.169 --> 00:25:32.409 this clinical trial was reported.

NOTE Confidence: 0.9412589

00:25:32.410 --> 00:25:34.564 A major category of side effects

NOTE Confidence: 0.9412589

00:25:34.564 --> 00:25:37.147 with with Balanta map or the eye

NOTE Confidence: 0.9412589

00:25:37.147 --> 00:25:38.942 disorders that are listed here

NOTE Confidence: 0.9412589

00:25:38.942 --> 00:25:40.806 and observed in 77% of patients

NOTE Confidence: 0.9412589

00:25:40.806 --> 00:25:42.834 in this clinical trial and mainly

NOTE Confidence: 0.9412589

00:25:42.834 --> 00:25:44.954 the the side effects in regards

NOTE Confidence: 0.9412589

00:25:44.954 --> 00:25:47.018 to eye symptoms are related to

NOTE Confidence: 0.9412589

00:25:47.089 --> 00:25:49.255 changes that happen in the cornea,

NOTE Confidence: 0.9412589

00:25:49.260 --> 00:25:51.080 which is the very front part of

NOTE Confidence: 0.9412589

00:25:51.080 --> 00:25:53.596 our I and these changes are known

NOTE Confidence: 0.9412589

00:25:53.596 --> 00:25:55.686 as keratopathy and the reported

NOTE Confidence: 0.9412589

00:25:55.686 --> 00:25:57.979 frequently within mostly the first two

NOTE Confidence: 0.9412589

00:25:57.979 --> 00:26:00.696 treatment cycles and they may require either.

NOTE Confidence: 0.9412589

00:26:00.696 --> 00:26:02.961 A reduction in dose or

NOTE Confidence: 0.9412589

00:26:02.961 --> 00:26:05.260 holding of the treatment.

NOTE Confidence: 0.9412589

00:26:05.260 --> 00:26:07.245 Learning about these eye symptoms

NOTE Confidence: 0.9412589

00:26:07.245 --> 00:26:09.230 has prompted a requirement for

NOTE Confidence: 0.9412589

00:26:09.300 --> 00:26:11.600 patients with angle antiknock ticket.

NOTE Confidence: 0.9412589

00:26:11.600 --> 00:26:14.096 Regular eye exams for close monitoring

NOTE Confidence: 0.9412589

00:26:14.096 --> 00:26:16.256 and also it's recommended that

NOTE Confidence: 0.9412589

00:26:16.256 --> 00:26:17.948 individuals on this medication

NOTE Confidence: 0.9412589

00:26:17.948 --> 00:26:19.217 use a lubricant.

NOTE Confidence: 0.9412589

00:26:19.220 --> 00:26:22.839 Eye drops regularly and avoid contact lenses.

NOTE Confidence: 0.9412589

00:26:22.840 --> 00:26:25.035 Other potential side effects associated

NOTE Confidence: 0.9412589

00:26:25.035 --> 00:26:27.230 with Blanton Mabor listed here.

NOTE Confidence: 0.9412589

00:26:27.230 --> 00:26:28.544 They include allergic,

NOTE Confidence: 0.9412589

00:26:28.544 --> 00:26:30.734 type or infusion related reactions,

NOTE Confidence: 0.9412589

00:26:30.740 --> 00:26:33.380 infections, and low blood cell counts.

NOTE Confidence: 0.9699676

00:26:36.770 --> 00:26:39.134 So Next up is melphalan Fluphenazine

NOTE Confidence: 0.9699676

00:26:39.134 --> 00:26:41.902 mid or malfouf in and this again

NOTE Confidence: 0.9699676

00:26:41.902 --> 00:26:44.140 is a first in class medication.

NOTE Confidence: 0.9699676

00:26:44.140 --> 00:26:46.828 It's a peptide which is a short chain

NOTE Confidence: 0.9699676

00:26:46.828 --> 00:26:49.161 of amino acids and it's combined

NOTE Confidence: 0.9699676

00:26:49.161 --> 00:26:51.531 with or conjugated to an alkyl

NOTE Confidence: 0.9699676

00:26:51.607 --> 00:26:54.109 later drug similar to the melphalan

NOTE Confidence: 0.9699676

00:26:54.109 --> 00:26:56.179 that we had discussed previously.

NOTE Confidence: 0.9699676

00:26:56.179 --> 00:26:58.573 And what happens is this medication

NOTE Confidence: 0.9699676

00:26:58.573 --> 00:27:00.912 can rapidly enter and be released

NOTE Confidence: 0.9699676

00:27:00.912 --> 00:27:01.986 into myeloma cells,

NOTE Confidence: 0.9699676

00:27:01.990 --> 00:27:03.151 causing irreversible damage

NOTE Confidence: 0.9699676

00:27:03.151 --> 00:27:05.473 to the DNA of the tumor.

NOTE Confidence: 0.9699676

00:27:05.480 --> 00:27:07.064 That's important for two.

NOTE Confidence: 0.9699676

00:27:07.064 --> 00:27:09.044 Or growth and this therefore

NOTE Confidence: 0.9699676

00:27:09.044 --> 00:27:10.430 leads to cell death.

NOTE Confidence: 0.9699676

00:27:10.430 --> 00:27:12.025 Melphalan Fofana Mid is approved

NOTE Confidence: 0.9699676

00:27:12.025 --> 00:27:14.420 at a dose of 40 milligrams.

NOTE Confidence: 0.9699676

00:27:14.420 --> 00:27:17.316 It it two is given by intravenous infusion,

NOTE Confidence: 0.9699676

00:27:17.320 --> 00:27:19.434 but once every four weeks and it's

NOTE Confidence: 0.9699676

00:27:19.434 --> 00:27:21.679 combined with the steroid dexamethasone,

NOTE Confidence: 0.9699676

00:27:21.680 --> 00:27:23.858 which is administered weekly for patients.

NOTE Confidence: 0.9699676

00:27:23.860 --> 00:27:26.020 And again this this approval is

NOTE Confidence: 0.9699676

00:27:26.020 --> 00:27:27.916 for patients with relapsed or

NOTE Confidence: 0.9699676

00:27:27.916 --> 00:27:29.456 refractory multiple myeloma who

NOTE Confidence: 0.9699676

00:27:29.456 --> 00:27:31.781 have received at least four prior

NOTE Confidence: 0.9699676

00:27:31.781 --> 00:27:33.755 therapies and are no longer responding

NOTE Confidence: 0.9699676

00:27:33.755 --> 00:27:36.560 to a PPI image and an anti CD.

NOTE Confidence: 0.9699676

00:27:36.560 --> 00:27:37.236 38 monoclonal.

NOTE Confidence: 0.9699676

00:27:37.236 --> 00:27:39.602 Antibody and this is based off the

NOTE Confidence: 0.9699676

00:27:39.602 --> 00:27:41.719 horizon study melphalan fluphenazine.

NOTE Confidence: 0.9699676

00:27:41.720 --> 00:27:44.708 I'd is a bit unique in that it does

NOTE Confidence: 0.9699676

00:27:44.708 --> 00:27:47.588 require a central catheter for infusion,

NOTE Confidence: 0.9699676

00:27:47.590 --> 00:27:50.710 such as a port or a pick line.

NOTE Confidence: 0.988881

00:27:52.800 --> 00:27:55.033 So the horizon study was a multicenter

NOTE Confidence: 0.988881

00:27:55.033 --> 00:27:57.731 trial of a total of 157 patients

NOTE Confidence: 0.988881

00:27:57.731 --> 00:27:59.826 with relapsed or refractory myeloma.

NOTE Confidence: 0.988881

00:27:59.830 --> 00:28:02.399 Though the approval was really based on

NOTE Confidence: 0.988881

00:28:02.399 --> 00:28:05.245 a smaller group of patients in the study

NOTE Confidence: 0.988881

00:28:05.245 --> 00:28:07.773 who had received at least four prior

NOTE Confidence: 0.988881

00:28:07.773 --> 00:28:10.137 lines of treatment and were considered

NOTE Confidence: 0.988881

00:28:10.137 --> 00:28:12.040 or triple class refractory refractory.

NOTE Confidence: 0.988881

00:28:12.040 --> 00:28:14.260 In this group, the overall response

NOTE Confidence: 0.988881

00:28:14.260 --> 00:28:16.894 rate was 26% and 9.3% of patients

NOTE Confidence: 0.988881

00:28:16.894 --> 00:28:19.180 achieved a very good partial response

NOTE Confidence: 0.988881

00:28:19.251 --> 00:28:21.285 or improvement of more than 90%

NOTE Confidence: 0.988881

00:28:21.290 --> 00:28:22.950 in their monoclonal protein.

NOTE Confidence: 0.988881

00:28:22.950 --> 00:28:25.440 The the median time to response

NOTE Confidence: 0.988881

00:28:25.512 --> 00:28:26.550 was 2.1 months,

NOTE Confidence: 0.988881

00:28:26.550 --> 00:28:29.102 so it took about 2.1 months for most

NOTE Confidence: 0.988881

00:28:29.102 --> 00:28:31.923 patients to see a response and the duration

NOTE Confidence: 0.988881

00:28:31.923 --> 00:28:34.269 of response was about 4.2 response.

NOTE Confidence: 0.988881

00:28:34.270 --> 00:28:36.376 But 4.2 months there was a

NOTE Confidence: 0.988881

00:28:36.376 --> 00:28:37.744 15% overall response rate.

NOTE Confidence: 0.988881

00:28:37.744 --> 00:28:40.110 In patients with what's referred to as

NOTE Confidence: 0.988881

00:28:40.173 --> 00:28:42.198 extramedullary disease or myeloma disease

NOTE Confidence: 0.988881

00:28:42.198 --> 00:28:44.567 involving tissues and or organs that

NOTE Confidence: 0.988881

00:28:44.567 --> 00:28:46.555 are outside the bone or bone marrow,

NOTE Confidence: 0.988881

00:28:46.560 --> 00:28:48.710 which typically is a high

NOTE Confidence: 0.988881

00:28:48.710 --> 00:28:50.430 risk feature for myeloma.

NOTE Confidence: 0.988881

00:28:50.430 --> 00:28:52.770 Side effects observed with melphalan flu.

NOTE Confidence: 0.988881

00:28:52.770 --> 00:28:55.032 Fenamad included primarily low grade low

NOTE Confidence: 0.988881

00:28:55.032 --> 00:28:57.361 blood cell counts which were managed

NOTE Confidence: 0.988881

00:28:57.361 --> 00:28:58.869 appropriately with either reduction

NOTE Confidence: 0.988881

00:28:58.869 --> 00:29:01.659 in doses of the medication or other

NOTE Confidence: 0.988881

00:29:01.659 --> 00:29:03.684 supportive care given by providers.

NOTE Confidence: 0.988881

00:29:03.690 --> 00:29:04.080 Fatigue,

NOTE Confidence: 0.988881

00:29:04.080 --> 00:29:04.470 swelling,

NOTE Confidence: 0.988881

00:29:04.470 --> 00:29:07.200 and bone and joint inks also occurred.

NOTE Confidence: 0.988881

00:29:07.200 --> 00:29:09.930 GI symptoms such as nausea and vomiting,

NOTE Confidence: 0.988881

00:29:09.930 --> 00:29:12.246 were not severe in the clinical

NOTE Confidence: 0.988881

00:29:12.246 --> 00:29:15.505 trial and there was no hair loss or

NOTE Confidence: 0.988881

00:29:15.505 --> 00:29:17.550 neuropathy or numbness and tingling

NOTE Confidence: 0.988881

00:29:17.550 --> 00:29:20.460 in the extremities or legs or arms.

NOTE Confidence: 0.988881

00:29:20.460 --> 00:29:22.392 That were reported with the use of

NOTE Confidence: 0.988881

00:29:22.392 --> 00:29:23.978 melphalan flu femmed in this trial.

NOTE Confidence: 0.894865200000001

00:29:27.220 --> 00:29:29.110 The last therapy we will discuss

NOTE Confidence: 0.894865200000001

00:29:29.110 --> 00:29:31.237 is the one most recently approved

NOTE Confidence: 0.894865200000001

00:29:31.237 --> 00:29:33.637 and this is the chimeric antigen

NOTE Confidence: 0.894865200000001

00:29:33.637 --> 00:29:35.917 receptor T cell or what is known

NOTE Confidence: 0.894865200000001

00:29:35.917 --> 00:29:39.610 as CAR T cell therapy idake.

NOTE Confidence: 0.894865200000001

00:29:39.610 --> 00:29:43.775 Excuse me, I to sell or idake.

NOTE Confidence: 0.894865200000001

00:29:43.780 --> 00:29:46.500 I do sell Vic Loosle ore Ida Salandit,

NOTE Confidence: 0.894865200000001

00:29:46.500 --> 00:29:48.990 the brand name forward is referred

NOTE Confidence: 0.894865200000001

00:29:48.990 --> 00:29:50.650 to as a Beckman.

NOTE Confidence: 0.894865200000001

00:29:50.650 --> 00:29:53.178 And the way that the car T and

NOTE Confidence: 0.894865200000001

00:29:53.178 --> 00:29:55.017 this product in particular works

NOTE Confidence: 0.894865200000001

00:29:55.017 --> 00:29:57.642 is that a patient's own T cell,

NOTE Confidence: 0.894865200000001

00:29:57.650 --> 00:30:00.450 a type of immune or white blood cell,

NOTE Confidence: 0.894865200000001

00:30:00.450 --> 00:30:02.415 is genetically modified by adding

NOTE Confidence: 0.894865200000001

00:30:02.415 --> 00:30:04.380 the chimeric antigen receptor or

NOTE Confidence: 0.894865200000001

00:30:04.445 --> 00:30:06.829 car that can then bind to the BCMA

NOTE Confidence: 0.894865200000001

00:30:06.829 --> 00:30:08.500 antigen present on myeloma cells.

NOTE Confidence: 0.894865200000001

00:30:08.500 --> 00:30:09.595 As previously discussed,

NOTE Confidence: 0.894865200000001

00:30:09.595 --> 00:30:11.785 there is activation and growth of

NOTE Confidence: 0.894865200000001

00:30:11.785 --> 00:30:13.393 these reprogrammed T cells which

NOTE Confidence: 0.894865200000001

00:30:13.393 --> 00:30:15.610 are then able to find and kill

NOTE Confidence: 0.894865200000001

00:30:15.610 --> 00:30:17.114 myeloma cells through various

NOTE Confidence: 0.894865200000001

00:30:17.114 --> 00:30:19.376 mechanisms through a variety of ways

NOTE Confidence: 0.894865200000001

00:30:19.376 --> 00:30:20.880 including release of cytokines.

NOTE Confidence: 0.894865200000001

00:30:20.880 --> 00:30:22.344 Which are small proteins?

NOTE Confidence: 0.894865200000001

00:30:22.344 --> 00:30:22.710 Importantly,

NOTE Confidence: 0.894865200000001

00:30:22.710 --> 00:30:24.540 which are important in inflammatory

NOTE Confidence: 0.894865200000001

00:30:24.540 --> 00:30:26.370 responses and signaling to cells.

NOTE Confidence: 0.894865200000001

00:30:26.370 --> 00:30:28.463 Ida Cell is the first car T

NOTE Confidence: 0.894865200000001

00:30:28.463 --> 00:30:30.359 approved in patients with relapsed

NOTE Confidence: 0.894865200000001

00:30:30.359 --> 00:30:32.227 or refractory multiple myeloma,

NOTE Confidence: 0.894865200000001

00:30:32.230 --> 00:30:34.336 and these patients who are eligible

NOTE Confidence: 0.894865200000001

00:30:34.336 --> 00:30:36.561 to receive it have received at

NOTE Confidence: 0.894865200000001

00:30:36.561 --> 00:30:38.805 least four prior lines of therapy,

NOTE Confidence: 0.894865200000001

00:30:38.810 --> 00:30:40.980 which again include AP and image and

NOTE Confidence: 0.894865200000001

00:30:40.980 --> 00:30:43.570 anti CD 38 monoclonal antibody and.

NOTE Confidence: 0.894865200000001

00:30:43.570 --> 00:30:46.013 This was based off what is known

NOTE Confidence: 0.894865200000001

00:30:46.013 --> 00:30:48.663 as the Karma trial and with car

NOTE Confidence: 0.894865200000001

00:30:48.663 --> 00:30:50.943 T cell therapy there are more.

NOTE Confidence: 0.894865200000001

00:30:50.950 --> 00:30:52.995 Multiple steps which are required

NOTE Confidence: 0.894865200000001

00:30:52.995 --> 00:30:55.040 including with Ida cell treatment

NOTE Confidence: 0.894865200000001

00:30:55.107 --> 00:30:56.817 and this includes blood collection

NOTE Confidence: 0.894865200000001

00:30:56.817 --> 00:30:59.324 or removal of these T cells through

NOTE Confidence: 0.894865200000001

00:30:59.324 --> 00:31:01.154 a process called a pheresis.

NOTE Confidence: 0.894865200000001

00:31:01.160 --> 00:31:03.608 This is followed by the manufacturing

NOTE Confidence: 0.894865200000001

00:31:03.608 --> 00:31:06.752 or the production of the car T cell

NOTE Confidence: 0.894865200000001

00:31:06.752 --> 00:31:08.906 product and this usually takes about

NOTE Confidence: 0.894865200000001

00:31:08.978 --> 00:31:11.090 a four week period and patients

NOTE Confidence: 0.894865200000001

00:31:11.090 --> 00:31:12.876 receive a low dose chemotherapy

NOTE Confidence: 0.894865200000001

00:31:12.876 --> 00:31:14.756 before I do cell infusion,

NOTE Confidence: 0.894865200000001

00:31:14.760 --> 00:31:16.360 usually over three days.

NOTE Confidence: 0.894865200000001

00:31:16.360 --> 00:31:19.579 And I do cells then administered as an

NOTE Confidence: 0.894865200000001

00:31:19.579 --> 00:31:22.197 infusion over 30 minutes per infusion bag.

NOTE Confidence: 0.894865200000001

00:31:22.200 --> 00:31:22.573 Importantly,

NOTE Confidence: 0.894865200000001

00:31:22.573 --> 00:31:25.184 there is a period of close monitoring

NOTE Confidence: 0.894865200000001

00:31:25.184 --> 00:31:26.949 after receiving Ida sell as well.

NOTE Confidence: 0.9257143

00:31:31.160 --> 00:31:33.162 So the Karma trial was a multi

NOTE Confidence: 0.9257143

00:31:33.162 --> 00:31:35.179 center phase two trial that included

NOTE Confidence: 0.9257143

00:31:35.179 --> 00:31:37.369 patients who had received at least

NOTE Confidence: 0.9257143

00:31:37.369 --> 00:31:39.748 three prior therapies including Apiai,

NOTE Confidence: 0.9257143

00:31:39.750 --> 00:31:42.935 Imid and an anti CD 38 antibody.

NOTE Confidence: 0.9257143

00:31:42.940 --> 00:31:45.052 Patients received I to sell at

NOTE Confidence: 0.9257143

00:31:45.052 --> 00:31:47.312 different dosages and of the 128

NOTE Confidence: 0.9257143

00:31:47.312 --> 00:31:49.277 patients who received this therapy,

NOTE Confidence: 0.9257143

00:31:49.280 --> 00:31:52.264 73% of them had a response with 33%

NOTE Confidence: 0.9257143

00:31:52.270 --> 00:31:54.790 having achieved a complete response or

NOTE Confidence: 0.9257143

00:31:54.790 --> 00:31:56.845 normalization of their myeloma studies

NOTE Confidence: 0.9257143

00:31:56.845 --> 00:31:58.980 in the blood or urine or better,

NOTE Confidence: 0.9257143

00:31:58.980 --> 00:32:01.434 the responses observed at the various

NOTE Confidence: 0.9257143

00:32:01.434 --> 00:32:04.202 dose levels and in the total group

NOTE Confidence: 0.9257143

00:32:04.202 --> 00:32:07.076 are seen in the figure here with the

NOTE Confidence: 0.9257143

00:32:07.076 --> 00:32:09.820 approved dose for Ida cell now being 300

NOTE Confidence: 0.9257143

00:32:09.820 --> 00:32:13.218 to 450 * 10 to the six Carty positive.

NOTE Confidence: 0.9257143

00:32:13.220 --> 00:32:15.548 Cells the majority of patients who

NOTE Confidence: 0.9257143

00:32:15.548 --> 00:32:17.888 received the approved dose were free

NOTE Confidence: 0.9257143

00:32:17.888 --> 00:32:20.060 of disease progression for 11.1 months

NOTE Confidence: 0.9257143

00:32:20.060 --> 00:32:22.664 and this increased to 20.2 months in

NOTE Confidence: 0.9257143

00:32:22.664 --> 00:32:24.828 those who had achieved what's known

NOTE Confidence: 0.9257143

00:32:24.828 --> 00:32:26.568 as a stringent complete response.

NOTE Confidence: 0.9257143

00:32:26.570 --> 00:32:28.086 With where there's disappearance

NOTE Confidence: 0.9257143

00:32:28.086 --> 00:32:30.731 of the myeloma protein in the blood

NOTE Confidence: 0.9257143

00:32:30.731 --> 00:32:32.831 in urine and no evidence of myeloma

NOTE Confidence: 0.9257143

00:32:32.831 --> 00:32:34.229 and the bone marrow,

NOTE Confidence: 0.9257143

00:32:34.230 --> 00:32:36.138 the most common side effects of

NOTE Confidence: 0.9257143

00:32:36.138 --> 00:32:38.168 this treatment were low blood cell

NOTE Confidence: 0.9257143

00:32:38.168 --> 00:32:40.250 counts and what's referred to as

NOTE Confidence: 0.9257143

00:32:40.250 --> 00:32:41.530 cytokine release syndrome,

NOTE Confidence: 0.9257143

00:32:41.530 --> 00:32:43.370 or the body's response to

NOTE Confidence: 0.9257143

00:32:43.370 --> 00:32:44.474 this uncontrolled and.

NOTE Confidence: 0.9257143

00:32:44.480 --> 00:32:46.770 Really excessive release of these

NOTE Confidence: 0.9257143

00:32:46.770 --> 00:32:48.602 proinflammatory cytokines that we

NOTE Confidence: 0.9257143

00:32:48.602 --> 00:32:50.779 discuss and this can lead to fever,

NOTE Confidence: 0.9257143

00:32:50.780 --> 00:32:51.962 low blood pressure,

NOTE Confidence: 0.9257143

00:32:51.962 --> 00:32:54.720 fast heart rate and low oxygen levels,

NOTE Confidence: 0.9257143

00:32:54.720 --> 00:32:56.109 among other symptoms.

NOTE Confidence: 0.9257143

00:32:56.109 --> 00:32:57.961 Cytokine release syndrome occurred

NOTE Confidence: 0.9257143

00:32:57.961 --> 00:33:00.860 to some degree in 84% of patients at

NOTE Confidence: 0.9257143

00:33:00.860 --> 00:33:03.310 a median of one day after infusion.

NOTE Confidence: 0.9257143

00:33:03.310 --> 00:33:05.760 Those severe events were not very common,

NOTE Confidence: 0.9257143

00:33:05.760 --> 00:33:07.152 and cytokine release syndrome

NOTE Confidence: 0.9257143

00:33:07.152 --> 00:33:09.240 was quickly identified due to the

NOTE Confidence: 0.9257143

00:33:09.297 --> 00:33:10.989 close monitoring and appropriately

NOTE Confidence: 0.9257143

00:33:10.989 --> 00:33:13.104 managed depending on its severity.

NOTE Confidence: 0.9257143

00:33:13.110 --> 00:33:14.690 Neurologic side effects occurred

NOTE Confidence: 0.9257143

00:33:14.690 --> 00:33:17.060 less frequently in this study than

NOTE Confidence: 0.9257143

00:33:17.124 --> 00:33:18.599 with other card T agents.

NOTE Confidence: 0.9900397

00:33:21.270 --> 00:33:23.489 So in addition to these newly approved

NOTE Confidence: 0.9900397

00:33:23.489 --> 00:33:25.078 agents, treatment options for patients

NOTE Confidence: 0.9900397

00:33:25.078 --> 00:33:26.980 with multiple myeloma continue to expand,

NOTE Confidence: 0.9900397

00:33:26.980 --> 00:33:29.318 and this is really through the study

NOTE Confidence: 0.9900397

00:33:29.318 --> 00:33:31.420 of new medications and combinations.

NOTE Confidence: 0.9900397

00:33:31.420 --> 00:33:33.401 On this slide, I've outlined a sampling

NOTE Confidence: 0.9900397

00:33:33.401 --> 00:33:35.210 of our available clinical trials here

NOTE Confidence: 0.9900397

00:33:35.210 --> 00:33:37.028 at Smilow and Yale Cancer Center,

NOTE Confidence: 0.9900397

00:33:37.030 --> 00:33:38.500 which, as you can see,

NOTE Confidence: 0.9900397

00:33:38.500 --> 00:33:40.522 are fortunately available for all time

NOTE Confidence: 0.9900397

00:33:40.522 --> 00:33:42.779 points in the myeloma disease course.

NOTE Confidence: 0.9900397

00:33:42.780 --> 00:33:44.934 So we have a study available

NOTE Confidence: 0.9900397

00:33:44.934 --> 00:33:46.883 for patients with smoldering or

NOTE Confidence: 0.9900397

00:33:46.883 --> 00:33:48.671 asymptomatic multiple myeloma that

NOTE Confidence: 0.9900397

00:33:48.671 --> 00:33:50.906 assesses or evaluates the benefit

NOTE Confidence: 0.9900397

00:33:50.974 --> 00:33:53.390 of adding Derek to map the anti CD

NOTE Confidence: 0.9900397

00:33:53.390 --> 00:33:55.089 38 monoclonal antibody to previously

NOTE Confidence: 0.9900397

00:33:55.089 --> 00:33:56.541 studied Lenalidomide for patients

NOTE Confidence: 0.9900397

00:33:56.541 --> 00:33:58.489 with newly diagnosed multiple myeloma.

NOTE Confidence: 0.9900397

00:33:58.490 --> 00:34:00.933 We we do have an investigator initiated

NOTE Confidence: 0.9900397

00:34:00.933 --> 00:34:04.166 trial led by Doctor Never Eats that is

NOTE Confidence: 0.9900397

00:34:04.166 --> 00:34:06.281 evaluating a more complete assessment

NOTE Confidence: 0.9900397

00:34:06.351 --> 00:34:08.361 of response in myeloma by looking

NOTE Confidence: 0.9900397

00:34:08.361 --> 00:34:10.856 both in the bone marrow and data

NOTE Confidence: 0.9900397

00:34:10.856 --> 00:34:13.148 myeloma bone lesions before and after.

NOTE Confidence: 0.9900397

00:34:13.150 --> 00:34:15.343 Therapy with carfilzomib,

NOTE Confidence: 0.9900397

00:34:15.343 --> 00:34:17.536 Lenalidomide and dexamethasone.

NOTE Confidence: 0.9900397

00:34:17.540 --> 00:34:20.291 And for those patients who are to

NOTE Confidence: 0.9900397

00:34:20.291 --> 00:34:21.943 receive maintenance therapy after

NOTE Confidence: 0.9900397

00:34:21.943 --> 00:34:23.973 undergoing a stem cell transplant

NOTE Confidence: 0.9900397

00:34:23.973 --> 00:34:26.726 but still have evidence of a low

NOTE Confidence: 0.9900397

00:34:26.726 --> 00:34:28.496 level of residual or remaining

NOTE Confidence: 0.9900397

00:34:28.496 --> 00:34:30.538 myeloma disease in the bone marrow,

NOTE Confidence: 0.9900397

00:34:30.538 --> 00:34:32.198 or what Doctor Barr defined

NOTE Confidence: 0.9900397

00:34:32.198 --> 00:34:34.268 as minimal residual disease,

NOTE Confidence: 0.9900397

00:34:34.270 --> 00:34:36.734 we do have a study looking at outcomes

NOTE Confidence: 0.9900397

00:34:36.734 --> 00:34:38.900 of adding again daratumumab to

NOTE Confidence: 0.9900397

00:34:38.900 --> 00:34:40.880 our standard maintenance regimen.

NOTE Confidence: 0.9900397

00:34:40.880 --> 00:34:43.208 For many patients, which is Lenalidomide.

NOTE Confidence: 0.9900397

00:34:43.210 --> 00:34:44.032 And lastly,

NOTE Confidence: 0.9900397

00:34:44.032 --> 00:34:46.498 we have multiple trials for patients

NOTE Confidence: 0.9900397

00:34:46.498 --> 00:34:48.848 with relapsed or refractory myeloma.

NOTE Confidence: 0.9900397

00:34:48.850 --> 00:34:50.202 Including an investigator initiated

NOTE Confidence: 0.9900397

00:34:50.202 --> 00:34:52.230 trial looking at quality of life

NOTE Confidence: 0.9900397

00:34:52.284 --> 00:34:53.939 for patients on daratumumab and

NOTE Confidence: 0.9900397

00:34:53.939 --> 00:34:55.263 trials with new medications,

NOTE Confidence: 0.9900397

00:34:55.270 --> 00:34:57.478 including those that use our patient's

NOTE Confidence: 0.9900397

00:34:57.478 --> 00:34:59.939 own immune system to fight off the

NOTE Confidence: 0.9900397

00:34:59.939 --> 00:35:02.709 myeloma and so at the conclusion of our talk,

NOTE Confidence: 0.9900397

00:35:02.710 --> 00:35:04.957 we'd be happy to share more information

NOTE Confidence: 0.9900397

00:35:04.957 --> 00:35:07.029 to help answer any questions you

NOTE Confidence: 0.9900397

00:35:07.029 --> 00:35:09.129 may have about our clinical trials.

NOTE Confidence: 0.9900397

00:35:09.130 --> 00:35:11.496 And thank you again for your time.

NOTE Confidence: 0.9900397

00:35:11.500 --> 00:35:14.533 I will now turn it over to Tara Anderson.

NOTE Confidence: 0.98708355

00:35:22.290 --> 00:35:26.240 Alright. One second, see.

NOTE Confidence: 0.98934656

00:35:39.740 --> 00:35:43.920 OK. Thank you Sabrina. So I'm Tara Anderson.

NOTE Confidence: 0.98934656

00:35:43.920 --> 00:35:46.685 I'm a physician assistant with the myeloma

NOTE Confidence: 0.98934656

00:35:46.685 --> 00:35:49.436 group here and I've been here since

NOTE Confidence: 0.98934656

00:35:49.436 --> 00:35:52.085 2015 and started doing myeloma in 2005

NOTE Confidence: 0.98934656

00:35:52.085 --> 00:35:54.741 and I'm going to talk about the common

NOTE Confidence: 0.98934656

00:35:54.741 --> 00:35:56.940 side effects with the myeloma therapies.

NOTE Confidence: 0.98934656

00:35:56.940 --> 00:35:59.607 The main therapy since the doctor Browning

NOTE Confidence: 0.98934656

00:35:59.607 --> 00:36:02.153 touched on all of the recent approved

NOTE Confidence: 0.98934656

00:36:02.153 --> 00:36:04.760 drugs and all of those side effects.

NOTE Confidence: 0.98934656

00:36:04.760 --> 00:36:07.105 So I'm going to talk about the

NOTE Confidence: 0.98934656

00:36:07.105 --> 00:36:09.237 main classes of medications that

NOTE Confidence: 0.98934656

00:36:09.237 --> 00:36:11.329 Doctor Barr discussed and.

NOTE Confidence: 0.98934656

00:36:11.330 --> 00:36:13.458 The general side effects from each class.

NOTE Confidence: 0.98150957

00:36:15.590 --> 00:36:18.068 Alright, so the different classes of

NOTE Confidence: 0.98150957

00:36:18.068 --> 00:36:20.196 treatment as Doctor Barr discussed

NOTE Confidence: 0.98150957

00:36:20.196 --> 00:36:22.632 in her presentation and then we

NOTE Confidence: 0.98150957

00:36:22.632 --> 00:36:24.870 usually combine as she mentioned,

NOTE Confidence: 0.98150957

00:36:24.870 --> 00:36:26.940 three drugs, or potentially now

NOTE Confidence: 0.98150957

00:36:26.940 --> 00:36:29.939 for drugs and one from each class.

NOTE Confidence: 0.98150957

00:36:29.940 --> 00:36:31.624 So produce some inhibitors,

NOTE Confidence: 0.98150957

00:36:31.624 --> 00:36:32.887 immune modulatory drugs,

NOTE Confidence: 0.98150957

00:36:32.890 --> 00:36:33.734 monoclonal antibodies,

NOTE Confidence: 0.98150957

00:36:33.734 --> 00:36:35.844 and most of our therapies

NOTE Confidence: 0.98150957

00:36:35.844 --> 00:36:36.688 include dexamethasone.

NOTE Confidence: 0.983532

00:36:38.850 --> 00:36:41.244 So the general side effects that are

NOTE Confidence: 0.983532

00:36:41.244 --> 00:36:43.518 included in all of our treatments,

NOTE Confidence: 0.983532

00:36:43.520 --> 00:36:46.463 I just don't want to have to put it

NOTE Confidence: 0.983532

00:36:46.463 --> 00:36:49.496 in all the slides, so you can always

NOTE Confidence: 0.983532

00:36:49.496 --> 00:36:52.130 refer back to this slide is fatigue.

NOTE Confidence: 0.983532

00:36:52.130 --> 00:36:53.930 All of them are transgenic.

NOTE Confidence: 0.983532

00:36:53.930 --> 00:36:56.873 We know with the imids we always do the

NOTE Confidence: 0.983532

00:36:56.873 --> 00:37:00.410 Rams program, but all of them should

NOTE Confidence: 0.983532

00:37:00.410 --> 00:37:03.410 require 2 forms of contraception and.

NOTE Confidence: 0.983532

00:37:03.410 --> 00:37:05.700 They're all class D for pregnancy,

NOTE Confidence: 0.983532

00:37:05.700 --> 00:37:08.160 so and all of the medications

NOTE Confidence: 0.983532

00:37:08.160 --> 00:37:11.079 that we use can cause rashes.

NOTE Confidence: 0.983532

00:37:11.080 --> 00:37:13.348 So what we typically would do for

NOTE Confidence: 0.983532

00:37:13.348 --> 00:37:15.909 a rash is use a steroid cream.

NOTE Confidence: 0.983532

00:37:15.910 --> 00:37:17.938 Or, depending on the how much

NOTE Confidence: 0.983532

00:37:17.938 --> 00:37:20.400 the rash covers of the body or

NOTE Confidence: 0.983532

00:37:20.400 --> 00:37:22.120 the symptoms from the rash.

NOTE Confidence: 0.983532

00:37:22.120 --> 00:37:24.058 Sometimes we'll just do an Anna

NOTE Confidence: 0.983532

00:37:24.058 --> 00:37:26.259 histamine prior to taking the medication,

NOTE Confidence: 0.983532

00:37:26.260 --> 00:37:28.493 and if the rash is more severe

NOTE Confidence: 0.983532

00:37:28.493 --> 00:37:30.999 than we will hold the medication

NOTE Confidence: 0.983532

00:37:30.999 --> 00:37:33.454 and potentially reduce the dopes.

NOTE Confidence: 0.983532

00:37:33.460 --> 00:37:35.212 And then all of the treatments

NOTE Confidence: 0.983532

00:37:35.212 --> 00:37:36.800 also cause decreased blood counts.

NOTE Confidence: 0.983532

00:37:36.800 --> 00:37:38.624 So with each treatment when you

NOTE Confidence: 0.983532

00:37:38.624 --> 00:37:39.840 come in for treatment,

NOTE Confidence: 0.983532

00:37:39.840 --> 00:37:42.536 we check your blood counts to make sure

NOTE Confidence: 0.983532

00:37:42.536 --> 00:37:45.148 it's safe to go ahead with treatment.

NOTE Confidence: 0.983532

00:37:45.150 --> 00:37:46.254 And if it's not,

NOTE Confidence: 0.983532

00:37:46.254 --> 00:37:48.640 sometimes we have to hold the medication,

NOTE Confidence: 0.983532

00:37:48.640 --> 00:37:51.168 and occasionally we have to reduce the dose.

NOTE Confidence: 0.983532

00:37:51.170 --> 00:37:53.360 And I and sometimes will also

NOTE Confidence: 0.983532

00:37:53.360 --> 00:37:55.282 use growth factors like NEUPOGEN

NOTE Confidence: 0.983532

00:37:55.282 --> 00:37:57.634 to stimulate the bone marrow to

NOTE Confidence: 0.983532

00:37:57.634 --> 00:37:59.919 help reduce some of those cells.

NOTE Confidence: 0.983532

00:37:59.920 --> 00:38:01.960 And with the reduced blood counts

NOTE Confidence: 0.983532

00:38:01.960 --> 00:38:02.980 you can see,

NOTE Confidence: 0.983532

00:38:02.980 --> 00:38:05.297 I mean a suppression and with all

NOTE Confidence: 0.983532

00:38:05.297 --> 00:38:07.398 of the treatments that can happen.

NOTE Confidence: 0.983532

00:38:07.400 --> 00:38:09.880 So we want to make sure you call

NOTE Confidence: 0.983532

00:38:09.880 --> 00:38:11.818 for any fevers you know.

NOTE Confidence: 0.983532

00:38:11.820 --> 00:38:13.216 There's always somebody here,

NOTE Confidence: 0.983532

00:38:13.216 --> 00:38:14.961 so a temperature is considered

NOTE Confidence: 0.983532

00:38:14.961 --> 00:38:15.900 100.4 or higher,

NOTE Confidence: 0.983532

00:38:15.900 --> 00:38:18.028 and then if you get frequent infections

NOTE Confidence: 0.983532

00:38:18.028 --> 00:38:19.979 or hospitalized for several infections,

NOTE Confidence: 0.983532

00:38:19.980 --> 00:38:22.227 sometimes will talk to you about giving

NOTE Confidence: 0.983532

00:38:22.227 --> 00:38:25.079 an Ivy called IVIG which is immuno globulin.

NOTE Confidence: 0.983532

00:38:25.080 --> 00:38:27.257 Which gives you some of the immunoglobulins

NOTE Confidence: 0.983532

00:38:27.257 --> 00:38:29.159 that you don't normally produce.

NOTE Confidence: 0.983532

00:38:29.160 --> 00:38:30.548 To help protect you.

NOTE Confidence: 0.983532

00:38:30.548 --> 00:38:31.589 From getting infections,

NOTE Confidence: 0.983532

00:38:31.590 --> 00:38:34.158 and we usually do that once a month,

NOTE Confidence: 0.983532

00:38:34.160 --> 00:38:36.897 so these are the general side effects

NOTE Confidence: 0.983532

00:38:36.897 --> 00:38:39.428 from all those classes of drugs.

NOTE Confidence: 0.983532

00:38:39.430 --> 00:38:41.086 And then specifically for the produce

NOTE Confidence: 0.983532

00:38:41.086 --> 00:38:42.809 some inhibitors which are listed below.

NOTE Confidence: 0.983532

00:38:42.810 --> 00:38:44.220 I will talk about someone

NOTE Confidence: 0.983532

00:38:44.220 --> 00:38:45.348 specific just for those,

NOTE Confidence: 0.983532

00:38:45.350 --> 00:38:47.135 and you can see the dates when

NOTE Confidence: 0.983532

00:38:47.135 --> 00:38:48.450 these drugs were approved.

NOTE Confidence: 0.983532

00:38:48.450 --> 00:38:50.853 So I started doing my element 2005 and I

NOTE Confidence: 0.983532

00:38:50.853 --> 00:38:53.249 can tell you when we started doing it.

NOTE Confidence: 0.983532

00:38:53.250 --> 00:38:54.660 When I started doing it.

NOTE Confidence: 0.983532

00:38:54.660 --> 00:38:56.340 The drugs that we use weren't

NOTE Confidence: 0.983532

00:38:56.340 --> 00:38:58.607 as good as the ones we have now.

NOTE Confidence: 0.983532

00:38:58.610 --> 00:39:00.707 We saw a lot more side effects and most

NOTE Confidence: 0.983532

00:39:00.707 --> 00:39:03.116 of these drugs are pretty well tolerated.

NOTE Confidence: 0.983532

00:39:03.120 --> 00:39:05.087 At least we want them to be.

NOTE Confidence: 0.983532

00:39:05.090 --> 00:39:07.834 So if you're not tolerating them well then

NOTE Confidence: 0.983532

00:39:07.834 --> 00:39:09.749 definitely reach out to us so we can.

NOTE Confidence: 0.983532

00:39:09.750 --> 00:39:12.470 Make it easier for you to tolerate it,

NOTE Confidence: 0.983532

00:39:12.470 --> 00:39:14.510 because once you're started on treatment,

NOTE Confidence: 0.983532

00:39:14.510 --> 00:39:16.782 we tend to keep you on therapy for

NOTE Confidence: 0.983532

00:39:16.782 --> 00:39:19.276 life and want to make sure we can

NOTE Confidence: 0.983532

00:39:19.276 --> 00:39:21.472 keep the disease under control while

NOTE Confidence: 0.983532

00:39:21.472 --> 00:39:23.687 maintaining good quality of life.

NOTE Confidence: 0.9586904

00:39:25.820 --> 00:39:28.388 So proteasome inhibitors in general can

NOTE Confidence: 0.9586904

00:39:28.388 --> 00:39:30.560 cause gastrointestinal side effects mildly.

NOTE Confidence: 0.9586904

00:39:30.560 --> 00:39:32.288 Sometimes we hear nausea,

NOTE Confidence: 0.9586904

00:39:32.288 --> 00:39:33.582 vomiting, not commonly,

NOTE Confidence: 0.9586904

00:39:33.582 --> 00:39:36.599 but it can some more than others,

NOTE Confidence: 0.9586904

00:39:36.600 --> 00:39:39.912 as I'll get two with the oral proteasome

NOTE Confidence: 0.9586904

00:39:39.912 --> 00:39:43.254 inhibitor and they all have a risk of

NOTE Confidence: 0.9586904

00:39:43.254 --> 00:39:45.650 reactivating herpes zoster or shingles,

NOTE Confidence: 0.9586904

00:39:45.650 --> 00:39:49.334 so all patients should be on

NOTE Confidence: 0.9586904

00:39:49.334 --> 00:39:51.790 acyclovir as a prophylaxis.

NOTE Confidence: 0.9586904

00:39:51.790 --> 00:39:54.009 And again, referring to the first slide,

NOTE Confidence: 0.9586904

00:39:54.010 --> 00:39:56.660 all those apply as well.

NOTE Confidence: 0.9586904

00:39:56.660 --> 00:39:58.606 And then both them up or VELCADE.

NOTE Confidence: 0.9586904

00:39:58.610 --> 00:40:00.482 One of the most common side effects we

NOTE Confidence: 0.9586904

00:40:00.482 --> 00:40:02.500 see with that is peripheral neuropathy.

NOTE Confidence: 0.9586904

00:40:02.500 --> 00:40:04.759 We would see it a lot more when we

NOTE Confidence: 0.9586904

00:40:04.759 --> 00:40:07.440 did give Velcade Ivy and we used to

NOTE Confidence: 0.9586904

00:40:07.440 --> 00:40:09.447 give allocate twice a week and now

NOTE Confidence: 0.9586904

00:40:09.447 --> 00:40:11.117 that we give it in a subcutaneous

NOTE Confidence: 0.9586904

00:40:11.117 --> 00:40:13.056 form and typically we give it weekly.

NOTE Confidence: 0.9586904

00:40:13.060 --> 00:40:14.728 We see a lot less neuropathy,

NOTE Confidence: 0.9586904

00:40:14.730 --> 00:40:16.120 but we still see it.

NOTE Confidence: 0.9586904

00:40:16.120 --> 00:40:18.184 So the key is to get a baseline

NOTE Confidence: 0.9586904

00:40:18.184 --> 00:40:20.261 assessment to see if anybody has any

NOTE Confidence: 0.9586904

00:40:20.261 --> 00:40:22.078 numbness or tingling in their hands

NOTE Confidence: 0.9586904

00:40:22.078 --> 00:40:23.926 and feet is typically where we see

NOTE Confidence: 0.9586904

00:40:23.926 --> 00:40:25.775 it at baseline and then to monitor

NOTE Confidence: 0.9586904

00:40:25.775 --> 00:40:27.570 to make sure it's not getting.

NOTE Confidence: 0.9586904

00:40:27.570 --> 00:40:27.849 Worse,

NOTE Confidence: 0.9586904

00:40:27.849 --> 00:40:30.081 we want to make sure it's not painful

NOTE Confidence: 0.9586904

00:40:30.081 --> 00:40:32.428 and it's not interfering with daily

NOTE Confidence: 0.9586904

00:40:32.428 --> 00:40:34.032 functioning like buttoning buttons

NOTE Confidence: 0.9586904

00:40:34.032 --> 00:40:36.070 or holding on to a coffee cup,

NOTE Confidence: 0.9586904

00:40:36.070 --> 00:40:37.710 or those types of things.

NOTE Confidence: 0.9586904

00:40:37.710 --> 00:40:40.572 And if it does then we may have to

NOTE Confidence: 0.9586904

00:40:40.572 --> 00:40:43.658 hold it or lower the dose and most of

NOTE Confidence: 0.9586904

00:40:43.658 --> 00:40:46.320 the time in 70% of patients it's reversible,

NOTE Confidence: 0.9586904

00:40:46.320 --> 00:40:49.097 so the key is to communicate with us

NOTE Confidence: 0.9586904

00:40:49.097 --> 00:40:51.433 when you have the neuropathy so we can,

NOTE Confidence: 0.9586904

00:40:51.440 --> 00:40:52.096 you know,

NOTE Confidence: 0.9586904

00:40:52.096 --> 00:40:53.080 make it better,

NOTE Confidence: 0.9586904

00:40:53.080 --> 00:40:55.688 and then we can also use these medications.

NOTE Confidence: 0.9586904

00:40:55.690 --> 00:40:56.036 Gabapentin,

NOTE Confidence: 0.9586904

00:40:56.036 --> 00:40:57.766 Lyrica or Cymbalta which sometimes.

NOTE Confidence: 0.9586904

00:40:57.770 --> 00:40:58.979 Help with neuropathy?

NOTE Confidence: 0.97834694

00:41:01.410 --> 00:41:03.240 We can also lower blood pressure,

NOTE Confidence: 0.97834694

00:41:03.240 --> 00:41:05.178 so if you're on blood pressure

NOTE Confidence: 0.97834694

00:41:05.178 --> 00:41:06.470 medication sometimes will have

NOTE Confidence: 0.97834694

00:41:06.524 --> 00:41:08.372 to hold it during the time when

NOTE Confidence: 0.97834694

00:41:08.372 --> 00:41:09.650 you're getting the VELCADE,

NOTE Confidence: 0.97834694

00:41:09.650 --> 00:41:11.890 and this isn't really a side effect

NOTE Confidence: 0.97834694

00:41:11.890 --> 00:41:14.055 but just kind of a note that if

NOTE Confidence: 0.97834694

00:41:14.055 --> 00:41:16.050 we take them in C supplements,

NOTE Confidence: 0.97834694

00:41:16.050 --> 00:41:17.772 we should hold it because there

NOTE Confidence: 0.97834694

00:41:17.772 --> 00:41:19.935 is data showing that vitamin C can

NOTE Confidence: 0.97834694

00:41:19.935 --> 00:41:21.849 interfere with the efficacy of alkane.

NOTE Confidence: 0.9380875

00:41:24.570 --> 00:41:26.180 Carfilzomib so the main thing

NOTE Confidence: 0.9380875

00:41:26.180 --> 00:41:27.790 with carfilzomib is the cardiac

NOTE Confidence: 0.9380875

00:41:27.844 --> 00:41:29.839 toxicities and the key here is also

NOTE Confidence: 0.9380875

00:41:29.839 --> 00:41:31.330 getting a baseline assessment.

NOTE Confidence: 0.9380875

00:41:31.330 --> 00:41:33.682 So if you have hypertension to get

NOTE Confidence: 0.9380875

00:41:33.682 --> 00:41:35.726 it controlled before we get started

NOTE Confidence: 0.9380875

00:41:35.726 --> 00:41:37.670 with the treatment and then to

NOTE Confidence: 0.9380875

00:41:37.670 --> 00:41:39.520 monitor it throughout and then we

NOTE Confidence: 0.9380875

00:41:39.520 --> 00:41:41.634 also want to make sure the hearts

NOTE Confidence: 0.9380875

00:41:41.634 --> 00:41:43.888 functioning OK so we'll do an echo.

NOTE Confidence: 0.9380875

00:41:43.890 --> 00:41:47.090 So an ultrasound of the heart prior to

NOTE Confidence: 0.9380875

00:41:47.090 --> 00:41:49.339 starting typically and we usually do an

NOTE Confidence: 0.9380875

00:41:49.339 --> 00:41:52.259 EKG and then a BNP as a as a blood draw.

NOTE Confidence: 0.9380875

00:41:52.260 --> 00:41:54.570 The lab that looks at the.

NOTE Confidence: 0.9380875

00:41:54.570 --> 00:41:56.038 Nonspecific marker of the

NOTE Confidence: 0.9380875

00:41:56.038 --> 00:41:57.506 stress on the heart.

NOTE Confidence: 0.9380875

00:41:57.510 --> 00:41:59.340 So we monitor that monthly.

NOTE Confidence: 0.9380875

00:41:59.340 --> 00:42:02.346 And then we want you to watch out for

NOTE Confidence: 0.9380875

00:42:02.346 --> 00:42:05.206 any kind of swelling in your legs,

NOTE Confidence: 0.9380875

00:42:05.210 --> 00:42:06.314 shortness of breath.

NOTE Confidence: 0.9380875

00:42:06.314 --> 00:42:08.115 Abdominal distention, because some of

NOTE Confidence: 0.9380875

00:42:08.115 --> 00:42:10.600 those could indicate that the heart isn't

NOTE Confidence: 0.9380875

00:42:10.672 --> 00:42:12.916 pumping as effectively as it should,

NOTE Confidence: 0.9380875

00:42:12.920 --> 00:42:14.760 so we watch for those.

NOTE Confidence: 0.9380875

00:42:14.760 --> 00:42:16.604 It's a low percentage,

NOTE Confidence: 0.9380875

00:42:16.604 --> 00:42:18.909 but it does happen so.

NOTE Confidence: 0.9380875

00:42:18.910 --> 00:42:21.826 We monitor those monthly as well.

NOTE Confidence: 0.9380875

00:42:21.830 --> 00:42:23.650 And because it's given Ivy,

NOTE Confidence: 0.9380875

00:42:23.650 --> 00:42:25.460 we sometimes see inflammation of

NOTE Confidence: 0.9380875

00:42:25.460 --> 00:42:26.908 the vein or thrombophlebitis,

NOTE Confidence: 0.9380875

00:42:26.910 --> 00:42:29.451 and you can use ice and that

NOTE Confidence: 0.9380875

00:42:29.451 --> 00:42:30.540 should help Tylenol.

NOTE Confidence: 0.9380875

00:42:30.540 --> 00:42:32.724 But if it keeps happening sometimes we

NOTE Confidence: 0.9380875

00:42:32.724 --> 00:42:34.982 recommend to use support and occasionally

NOTE Confidence: 0.9380875

00:42:34.982 --> 00:42:37.077 we can see pulmonary hypertension.

NOTE Confidence: 0.9380875

00:42:37.080 --> 00:42:39.300 So sometimes the shortness of

NOTE Confidence: 0.9380875

00:42:39.300 --> 00:42:42.220 breath may not be due to the.

NOTE Confidence: 0.9380875

00:42:42.220 --> 00:42:42.710 The heart,

NOTE Confidence: 0.9380875

00:42:42.710 --> 00:42:45.100 but it may be more due to the lungs,

NOTE Confidence: 0.9380875

00:42:45.100 --> 00:42:47.720 so we can usually pick that up on an echo.

NOTE Confidence: 0.9380875

00:42:47.720 --> 00:42:49.244 Or if we can't figure out

NOTE Confidence: 0.9380875

00:42:49.244 --> 00:42:50.869 what's going on with the heart,

NOTE Confidence: 0.9380875

00:42:50.870 --> 00:42:52.697 sometimes will refer to a pulmonary doctor.

NOTE Confidence: 0.9375047

00:42:55.470 --> 00:42:57.458 And then examine or narrow is the

NOTE Confidence: 0.9375047

00:42:57.458 --> 00:42:59.577 last produce I'm going to have better

NOTE Confidence: 0.9375047

00:42:59.577 --> 00:43:01.383 that was approved and it's oral.

NOTE Confidence: 0.9375047

00:43:01.390 --> 00:43:03.606 So because it's oral we see a lot

NOTE Confidence: 0.9375047

00:43:03.606 --> 00:43:06.130 more GI side effects or in the data.

NOTE Confidence: 0.9375047

00:43:06.130 --> 00:43:08.041 And in all the trials they see

NOTE Confidence: 0.9375047

00:43:08.041 --> 00:43:10.267 a lot more jet GI side effects.

NOTE Confidence: 0.9375047

00:43:10.270 --> 00:43:12.925 I think in practice we don't see as many,

NOTE Confidence: 0.9375047

00:43:12.930 --> 00:43:15.378 but we usually tell you to have Zofran

NOTE Confidence: 0.9375047

00:43:15.378 --> 00:43:17.367 or Imodium on hand just in case,

NOTE Confidence: 0.9375047

00:43:17.370 --> 00:43:19.547 and then obviously if you were to

NOTE Confidence: 0.9375047

00:43:19.547 --> 00:43:21.620 vomit after taking the pill we won't

NOTE Confidence: 0.9375047

00:43:21.620 --> 00:43:23.920 want you to reach, you know take the

NOTE Confidence: 0.9375047

00:43:23.920 --> 00:43:25.750 pill again 'cause we don't know.

NOTE Confidence: 0.9375047

00:43:25.750 --> 00:43:28.378 How much was absorbed?

NOTE Confidence: 0.9375047

00:43:28.380 --> 00:43:30.382 And also reach out to us if

NOTE Confidence: 0.9375047

00:43:30.382 --> 00:43:31.830 that was to happen.

NOTE Confidence: 0.9375047

00:43:31.830 --> 00:43:34.194 You can also see lower extremity

NOTE Confidence: 0.9375047

00:43:34.194 --> 00:43:35.770 swelling with this one.

NOTE Confidence: 0.9375047

00:43:35.770 --> 00:43:37.750 We recommend compression stockings,

NOTE Confidence: 0.9375047

00:43:37.750 --> 00:43:40.225 elevating your legs and sometimes

NOTE Confidence: 0.9375047

00:43:40.225 --> 00:43:42.859 will give you a water pill or lay 6.

NOTE Confidence: 0.97588384

00:43:46.060 --> 00:43:48.426 OK, and the second class of medications

NOTE Confidence: 0.97588384

00:43:48.426 --> 00:43:51.306 that we use in combination or the

NOTE Confidence: 0.97588384

00:43:51.306 --> 00:43:53.098 immunomodulatory drugs or image.

NOTE Confidence: 0.97588384

00:43:53.100 --> 00:43:55.398 So the first one that was

NOTE Confidence: 0.97588384

00:43:55.398 --> 00:43:57.403 approved was the Little Mide

NOTE Confidence: 0.97588384

00:43:57.403 --> 00:43:59.749 and that was approved in 2006,

NOTE Confidence: 0.97588384

00:43:59.750 --> 00:44:01.976 but we were using it earlier

NOTE Confidence: 0.97588384

00:44:01.976 --> 00:44:04.050 and kind of off label,

NOTE Confidence: 0.97588384

00:44:04.050 --> 00:44:07.110 and we don't use it as much because it

NOTE Confidence: 0.97588384

00:44:07.110 --> 00:44:10.300 has more toxicities and the other two.

NOTE Confidence: 0.97588384

00:44:10.300 --> 00:44:12.580 So now we typically start with

NOTE Confidence: 0.97588384

00:44:12.580 --> 00:44:14.100 Lenalidomide or REVLIMID and

NOTE Confidence: 0.97588384

00:44:14.166 --> 00:44:16.170 then after relapse, use POMALYST.

NOTE Confidence: 0.98137456

00:44:19.100 --> 00:44:20.948 So in general, that emits are

NOTE Confidence: 0.98137456

00:44:20.948 --> 00:44:22.180 putting patients at higher

NOTE Confidence: 0.98137456

00:44:22.235 --> 00:44:23.939 risk of venous thromboembolism.

NOTE Confidence: 0.98137456

00:44:23.940 --> 00:44:26.369 So we don't want so blood clot.

NOTE Confidence: 0.98137456

00:44:26.370 --> 00:44:29.150 So we want you to let us know if you

NOTE Confidence: 0.98137456

00:44:29.228 --> 00:44:32.068 had any swelling in your legs or pain

NOTE Confidence: 0.98137456

00:44:32.068 --> 00:44:35.018 and your legs or shortness of breath.

NOTE Confidence: 0.98137456

00:44:35.020 --> 00:44:37.435 And we put you on an aspirin

NOTE Confidence: 0.98137456

00:44:37.435 --> 00:44:38.457 as prophylaxis, typically.

NOTE Confidence: 0.98137456

00:44:38.457 --> 00:44:41.073 Or if you if you're at high risk

NOTE Confidence: 0.98137456

00:44:41.073 --> 00:44:43.317 or have had a thought before,

NOTE Confidence: 0.98137456

00:44:43.320 --> 00:44:45.390 we usually place you on an

NOTE Confidence: 0.98137456

00:44:45.390 --> 00:44:46.425 oral anticoagulant now.

NOTE Confidence: 0.98137456

00:44:46.430 --> 00:44:49.310 In the past we use Lovenox or Coumadin.

NOTE Confidence: 0.98137456

00:44:49.310 --> 00:44:52.078 And now we have the newer agents which

NOTE Confidence: 0.98137456

00:44:52.078 --> 00:44:55.026 are easier to use the oral anticoagulants.

NOTE Confidence: 0.98137456

00:44:55.030 --> 00:44:57.649 And then I know I brought up the terror

NOTE Confidence: 0.98137456

00:44:57.649 --> 00:44:59.859 that regeneca effects in general,

NOTE Confidence: 0.98137456

00:44:59.860 --> 00:45:02.596 but with this one we have to do the

NOTE Confidence: 0.98137456

00:45:02.596 --> 00:45:05.640 Rams paperwork and you have to do the

NOTE Confidence: 0.98137456

00:45:05.640 --> 00:45:08.197 phone surveys and so just a reminder

NOTE Confidence: 0.98137456

00:45:08.197 --> 00:45:10.802 with that way back in the 50s and

NOTE Confidence: 0.98137456

00:45:10.802 --> 00:45:13.170 60s the limit was used as a sleeping

NOTE Confidence: 0.98137456

00:45:13.238 --> 00:45:15.374 pill for pregnant women and then

NOTE Confidence: 0.98137456

00:45:15.374 --> 00:45:18.150 they had babies that were had deformity.

NOTE Confidence: 0.98137456

00:45:18.150 --> 00:45:20.160 So that's why the REMS program

NOTE Confidence: 0.98137456

00:45:20.160 --> 00:45:22.290 is in place with that drug.

NOTE Confidence: 0.97652555

00:45:24.510 --> 00:45:26.210 So Speaking of full time,

NOTE Confidence: 0.97652555

00:45:26.210 --> 00:45:28.590 I'd the main side effects that we

NOTE Confidence: 0.97652555

00:45:28.590 --> 00:45:30.012 see are fatigue, Constipation,

NOTE Confidence: 0.97652555

00:45:30.012 --> 00:45:31.218 numbness and tingling.

NOTE Confidence: 0.97652555

00:45:31.218 --> 00:45:34.545 So those are the top three and then also

NOTE Confidence: 0.97652555

00:45:34.545 --> 00:45:37.089 we can see a slowed heart rate with it,

NOTE Confidence: 0.97652555

00:45:37.090 --> 00:45:40.674 which may be causing some other fatigue.

NOTE Confidence: 0.97652555

00:45:40.680 --> 00:45:42.408 We typically used it at lower

NOTE Confidence: 0.97652555

00:45:42.408 --> 00:45:44.320 doses when I was using this,

NOTE Confidence: 0.97652555

00:45:44.320 --> 00:45:46.434 when there wasn't much else to use,

NOTE Confidence: 0.97652555

00:45:46.440 --> 00:45:48.888 we would use much higher doses and it was

NOTE Confidence: 0.97652555

00:45:48.888 --> 00:45:51.290 very difficult to tolerate at that time.

NOTE Confidence: 0.97652555

00:45:51.290 --> 00:45:54.994 But with the lower doses we can usually.

NOTE Confidence: 0.97652555

00:45:55.000 --> 00:45:57.086 Use it with minimal side effects and

NOTE Confidence: 0.97652555

00:45:57.086 --> 00:45:59.238 some of these medications to help so

NOTE Confidence: 0.97652555

00:45:59.238 --> 00:46:01.489 the same with them with the numbness

NOTE Confidence: 0.97652555

00:46:01.489 --> 00:46:03.479 and tingling in the gabapentin,

NOTE Confidence: 0.97652555

00:46:03.480 --> 00:46:04.752 Lyrica, and Cymbalta.

NOTE Confidence: 0.97652555

00:46:04.752 --> 00:46:07.720 And the typical things we we want

NOTE Confidence: 0.97652555

00:46:07.801 --> 00:46:10.267 you to do if you're constipated,

NOTE Confidence: 0.97652555

00:46:10.270 --> 00:46:13.366 so Senate police increased water fiber.

NOTE Confidence: 0.97652555

00:46:13.370 --> 00:46:14.258 Those types of things.

NOTE Confidence: 0.9766345

00:46:16.740 --> 00:46:19.233 And then learn a little made one of them

NOTE Confidence: 0.9766345

00:46:19.233 --> 00:46:21.600 are common side effects as diarrhea,

NOTE Confidence: 0.9766345

00:46:21.600 --> 00:46:23.220 especially the longer you're on.

NOTE Confidence: 0.9766345

00:46:23.220 --> 00:46:25.604 It tends to be more of a cumulative

NOTE Confidence: 0.9766345

00:46:25.604 --> 00:46:27.760 effect and we do different things.

NOTE Confidence: 0.9766345

00:46:27.760 --> 00:46:29.958 First, we want to make sure that

NOTE Confidence: 0.9766345

00:46:29.958 --> 00:46:31.970 you're not having diarrhea from a,

NOTE Confidence: 0.9766345

00:46:31.970 --> 00:46:34.875 you know a different cause like infection.

NOTE Confidence: 0.9766345

00:46:34.880 --> 00:46:37.155 Or, you know, is it you know,

NOTE Confidence: 0.9766345

00:46:37.160 --> 00:46:39.110 did you develop an intolerance to

NOTE Confidence: 0.9766345

00:46:39.110 --> 00:46:40.750 lactose or something like that?

NOTE Confidence: 0.9766345

00:46:40.750 --> 00:46:42.054 Or high fat foods?

NOTE Confidence: 0.9766345

00:46:42.054 --> 00:46:44.010 So sometimes will alter the diet.

NOTE Confidence: 0.9766345

00:46:44.010 --> 00:46:44.660 Try Imodium,

NOTE Confidence: 0.9766345

00:46:44.660 --> 00:46:46.285 and if those don't work,

NOTE Confidence: 0.9766345

00:46:46.290 --> 00:46:48.054 sometimes will add a medication called

NOTE Confidence: 0.9766345

00:46:48.054 --> 00:46:50.022 full listed which helps with the

NOTE Confidence: 0.9766345

00:46:50.022 --> 00:46:51.506 diarrhea associated with Lenalidomide.

NOTE Confidence: 0.9766345

00:46:51.510 --> 00:46:53.785 And then I put trash in here,

NOTE Confidence: 0.9766345

00:46:53.790 --> 00:46:56.065 even though we already talked about it,

NOTE Confidence: 0.9766345

00:46:56.070 --> 00:46:58.026 because it's fairly common with Lenalidomide,

NOTE Confidence: 0.9766345

00:46:58.030 --> 00:46:58.622 and again,

NOTE Confidence: 0.9766345

00:46:58.622 --> 00:47:02.058 a lot of times we have to hold and reduce the

NOTE Confidence: 0.9766345

00:47:02.058 --> 00:47:05.250 dose if the creams and the Anna histamines.

NOTE Confidence: 0.9766345

00:47:05.250 --> 00:47:07.950 Aren't controlling the rash?

NOTE Confidence: 0.9766345

00:47:07.950 --> 00:47:10.320 And then if you second primary

NOTE Confidence: 0.9766345

00:47:10.320 --> 00:47:11.505 malignancies can happen,

NOTE Confidence: 0.9766345

00:47:11.510 --> 00:47:13.802 this is because people are living

NOTE Confidence: 0.9766345

00:47:13.802 --> 00:47:16.270 longer and doing better with myeloma.

NOTE Confidence: 0.9766345

00:47:16.270 --> 00:47:18.640 On this for a long time.

NOTE Confidence: 0.9766345

00:47:18.640 --> 00:47:22.438 And they've seen second primary malignancies.

NOTE Confidence: 0.9766345

00:47:22.440 --> 00:47:24.920 So just a reminder to follow up with

NOTE Confidence: 0.9766345

00:47:24.920 --> 00:47:27.379 your primary care for routine screenings.

NOTE Confidence: 0.9766345

00:47:27.380 --> 00:47:29.510 Definitely the the benefits of the

NOTE Confidence: 0.9766345

00:47:29.510 --> 00:47:30.930 Lenalidomide Lenalidomide outweigh the

NOTE Confidence: 0.9766345

00:47:30.984 --> 00:47:33.030 risk of these second primary malignancies,

NOTE Confidence: 0.9766345

00:47:33.030 --> 00:47:36.390 but it's still something to be cautious

NOTE Confidence: 0.9766345

00:47:36.390 --> 00:47:40.279 of and follow up with your primary care.

NOTE Confidence: 0.9766345

00:47:40.280 --> 00:47:41.910 And then the last images,

NOTE Confidence: 0.9766345

00:47:41.910 --> 00:47:42.235 comma,

NOTE Confidence: 0.9766345

00:47:42.235 --> 00:47:44.185 little mid and again rash is

NOTE Confidence: 0.9766345

00:47:44.185 --> 00:47:46.396 fairly common with this one and the

NOTE Confidence: 0.9766345

00:47:46.396 --> 00:47:48.160 only other one we see peripheral

NOTE Confidence: 0.9766345

00:47:48.229 --> 00:47:49.601 neuropathy occasionally with this

NOTE Confidence: 0.9766345

00:47:49.601 --> 00:47:52.310 not as much as with the little mine,

NOTE Confidence: 0.9766345

00:47:52.310 --> 00:47:54.260 but otherwise it's fairly well tolerated.

NOTE Confidence: 0.9766345

00:47:54.260 --> 00:47:57.176 We don't usually see as many GI side effects.

NOTE Confidence: 0.9766345

00:47:57.180 --> 00:48:00.212 We tend to see a little bit more

NOTE Confidence: 0.9766345

00:48:00.212 --> 00:48:02.488 cytopenia or low blood counts.

NOTE Confidence: 0.9766345

00:48:02.490 --> 00:48:04.807 Mainly because it's used later in therapy.

NOTE Confidence: 0.9592045

00:48:07.290 --> 00:48:09.908 OK, and then the last class of

NOTE Confidence: 0.9592045

00:48:09.908 --> 00:48:12.789 medications or the monoclonal antibodies.

NOTE Confidence: 0.9592045

00:48:12.790 --> 00:48:14.188 So there's three.

NOTE Confidence: 0.9592045

00:48:14.188 --> 00:48:16.984 There are two memebr and ilities

NOTE Confidence: 0.9592045

00:48:16.984 --> 00:48:20.124 map were both approved in 2015 and

NOTE Confidence: 0.9592045

00:48:20.124 --> 00:48:23.350 then just last year daratumumab was

NOTE Confidence: 0.9592045

00:48:23.350 --> 00:48:26.170 approved subcutaneously and then.

NOTE Confidence: 0.9592045

00:48:26.170 --> 00:48:27.456 It's a text map,

NOTE Confidence: 0.9592045

00:48:27.456 --> 00:48:29.066 is just approved last year,

NOTE Confidence: 0.9592045

00:48:29.070 --> 00:48:31.002 so these have made a big

NOTE Confidence: 0.9592045

00:48:31.002 --> 00:48:31.968 difference and treatment,

NOTE Confidence: 0.9592045

00:48:31.970 --> 00:48:33.580 and they're fairly well tolerated.

NOTE Confidence: 0.9592045

00:48:33.580 --> 00:48:35.185 And now that we have

NOTE Confidence: 0.9592045

00:48:35.185 --> 00:48:35.827 daratumumab subcutaneous,

NOTE Confidence: 0.9592045

00:48:35.830 --> 00:48:38.308 it's made a big difference and some

NOTE Confidence: 0.9592045

00:48:38.308 --> 00:48:40.302 other patients that have had Ivy

NOTE Confidence: 0.9592045

00:48:40.302 --> 00:48:42.590 know that the first time we give it.

NOTE Confidence: 0.9592045

00:48:42.590 --> 00:48:44.956 It's like an all day infusion and

NOTE Confidence: 0.9592045

00:48:44.956 --> 00:48:47.420 then the next is like half a day.

NOTE Confidence: 0.9592045

00:48:47.420 --> 00:48:49.030 So it was a long.

NOTE Confidence: 0.9592045

00:48:49.030 --> 00:48:50.920 There are long days and now that

NOTE Confidence: 0.9592045

00:48:50.920 --> 00:48:52.900 we can give it subcutaneously,

NOTE Confidence: 0.9592045

00:48:52.900 --> 00:48:54.340 it's a lot shorter.

NOTE Confidence: 0.9592045

00:48:54.340 --> 00:48:56.500 It's about a 10 minute injection.

NOTE Confidence: 0.9592045

00:48:56.500 --> 00:48:58.984 And you only have to stay for a few

NOTE Confidence: 0.9592045

00:48:58.984 --> 00:49:01.077 hours after the first injection.

NOTE Confidence: 0.9592045

00:49:01.080 --> 00:49:03.606 So our main concern with these

NOTE Confidence: 0.9592045

00:49:03.606 --> 00:49:05.290 medications are the infusion

NOTE Confidence: 0.9592045

00:49:05.368 --> 00:49:07.508 related reactions and we typically

NOTE Confidence: 0.9592045

00:49:07.508 --> 00:49:10.605 would only see a reaction with the

NOTE Confidence: 0.9592045

00:49:10.605 --> 00:49:12.800 first injection or first infusion.

NOTE Confidence: 0.9592045

00:49:12.800 --> 00:49:16.008 But as you can see the the reactions

NOTE Confidence: 0.9592045

00:49:16.008 --> 00:49:18.868 are fairly common marso with Dara.

NOTE Confidence: 0.9592045

00:49:18.870 --> 00:49:22.727 I've eaten subq, it's 34 to 48%.

NOTE Confidence: 0.9592045

00:49:22.730 --> 00:49:23.085 Well,

NOTE Confidence: 0.9592045

00:49:23.085 --> 00:49:26.770 at last with the subcu and then it's a text.

NOTE Confidence: 0.9592045

00:49:26.770 --> 00:49:29.206 Matt is similar to the Dara and

NOTE Confidence: 0.9592045

00:49:29.206 --> 00:49:31.910 the E Lo is only about 10%.

NOTE Confidence: 0.9592045

00:49:31.910 --> 00:49:33.745 So to prevent these infusion

NOTE Confidence: 0.9592045

00:49:33.745 --> 00:49:35.580 reactions we premedicate with Tylenol,

NOTE Confidence: 0.9592045

00:49:35.580 --> 00:49:37.056 Benadryl and dexamethasone and

NOTE Confidence: 0.9592045

00:49:37.056 --> 00:49:39.270 with the first infusion we also

NOTE Confidence: 0.9592045

00:49:39.338 --> 00:49:40.710 give singular for Dara.

NOTE Confidence: 0.9592045

00:49:40.710 --> 00:49:45.129 And we give Pepcid for acid attacks in men.

NOTE Confidence: 0.9592045

00:49:45.130 --> 00:49:46.691 And this and we give this with

NOTE Confidence: 0.9592045

00:49:46.691 --> 00:49:47.916 each infusion the singular we

NOTE Confidence: 0.9592045

00:49:47.916 --> 00:49:49.446 only do with the first infusion,

NOTE Confidence: 0.9592045

00:49:49.450 --> 00:49:52.229 and this tends to reduce the rate.

NOTE Confidence: 0.9592045

00:49:52.230 --> 00:49:54.660 And most of the infusion reactions

NOTE Confidence: 0.9592045

00:49:54.660 --> 00:49:57.089 are very mild. We just stopped.

NOTE Confidence: 0.9592045

00:49:57.089 --> 00:49:59.104 Infusion treat the reaction and

NOTE Confidence: 0.9592045

00:49:59.104 --> 00:50:01.708 then we started at a lower dose.

NOTE Confidence: 0.9592045

00:50:01.710 --> 00:50:03.718 So we just want to make sure you

NOTE Confidence: 0.9592045

00:50:03.718 --> 00:50:06.200 let the nurse know if you notice

NOTE Confidence: 0.9592045

00:50:06.200 --> 00:50:07.732 anything like scratchy throat,

NOTE Confidence: 0.9592045

00:50:07.740 --> 00:50:08.055 cold,

NOTE Confidence: 0.9592045

00:50:08.055 --> 00:50:10.134 nauseous to let the nurse know

NOTE Confidence: 0.9592045

00:50:10.134 --> 00:50:12.983 right away so we can stop the

NOTE Confidence: 0.9592045

00:50:12.983 --> 00:50:15.390 infusion and treat the reaction.

NOTE Confidence: 0.9592045

00:50:15.390 --> 00:50:17.418 And then we also see shingles

NOTE Confidence: 0.9592045

00:50:17.418 --> 00:50:18.432 with monoclonal antibodies.

NOTE Confidence: 0.9592045

00:50:18.440 --> 00:50:21.256 So you need to be on prophylaxis with

NOTE Confidence: 0.9592045

00:50:21.256 --> 00:50:23.188 acyclovir with this one as well,

NOTE Confidence: 0.9592045

00:50:23.190 --> 00:50:24.942 and then the studies that are

NOTE Confidence: 0.9592045

00:50:24.942 --> 00:50:26.607 increased risk rates of an

NOTE Confidence: 0.9592045

00:50:26.607 --> 00:50:27.930 upper respiratory infections.

NOTE Confidence: 0.97746074

00:50:30.390 --> 00:50:33.594 And then the fast, the last one is steroids.

NOTE Confidence: 0.97746074

00:50:33.600 --> 00:50:34.791 Everyones favorite dexamethasone.

NOTE Confidence: 0.97746074

00:50:34.791 --> 00:50:37.934 So this one is probably the hardest to

NOTE Confidence: 0.97746074

00:50:37.934 --> 00:50:40.382 tolerate just because of you know the weight.

NOTE Confidence: 0.97746074

00:50:40.390 --> 00:50:41.407 Gain the irritability.

NOTE Confidence: 0.97746074

00:50:41.407 --> 00:50:42.763 All these things that

NOTE Confidence: 0.97746074

00:50:42.763 --> 00:50:44.310 happened and trouble sleeping.

NOTE Confidence: 0.97746074

00:50:44.310 --> 00:50:46.350 So sometimes will give melatonin or

NOTE Confidence: 0.97746074

00:50:46.350 --> 00:50:48.531 atterax which is a older generation

NOTE Confidence: 0.97746074

00:50:48.531 --> 00:50:51.177 antihistamine and we may have to reduce

NOTE Confidence: 0.97746074

00:50:51.177 --> 00:50:53.950 the dose if there's lots of side effects,

NOTE Confidence: 0.97746074

00:50:53.950 --> 00:50:57.163 and then you should be following up with an

NOTE Confidence: 0.97746074

00:50:57.163 --> 00:51:00.418 eye doctor 'cause it can cause cataracts.

NOTE Confidence: 0.97746074

00:51:00.420 --> 00:51:02.810 And primary care under friend

NOTE Confidence: 0.97746074

00:51:02.810 --> 00:51:05.210 'cause you can see steroid

NOTE Confidence: 0.97746074

00:51:05.210 --> 00:51:08.140 induced steroid induced diabetes.

NOTE Confidence: 0.97746074

00:51:08.140 --> 00:51:08.740 Excuse me

NOTE Confidence: 0.98098344

00:51:11.370 --> 00:51:13.250 alright. So in summary,

NOTE Confidence: 0.98098344

00:51:13.250 --> 00:51:15.600 treatment for myeloma is generally

NOTE Confidence: 0.98098344

00:51:15.600 --> 00:51:18.502 well tolerated now with a lot a lot

NOTE Confidence: 0.98098344

00:51:18.502 --> 00:51:20.779 better and the like since 2005.

NOTE Confidence: 0.98098344

00:51:20.780 --> 00:51:23.636 Prior to 2005. I think it was,

NOTE Confidence: 0.98098344

00:51:23.640 --> 00:51:26.094 you know, more of the traditional

NOTE Confidence: 0.98098344

00:51:26.094 --> 00:51:28.138 chemotherapy with hair loss, nausea,

NOTE Confidence: 0.98098344

00:51:28.138 --> 00:51:31.402 vomiting, a lot of a lot more toxicity.

NOTE Confidence: 0.98098344

00:51:31.410 --> 00:51:34.441 So with the newer generation of all

NOTE Confidence: 0.98098344

00:51:34.441 --> 00:51:36.730 the different classes we have now,

NOTE Confidence: 0.98098344

00:51:36.730 --> 00:51:38.362 that treatment should be

NOTE Confidence: 0.98098344

00:51:38.362 --> 00:51:39.586 pretty well tolerated.

NOTE Confidence: 0.98098344

00:51:39.590 --> 00:51:41.690 So the key is communication.

NOTE Confidence: 0.98098344

00:51:41.690 --> 00:51:43.797 Make sure you let us know if

NOTE Confidence: 0.98098344

00:51:43.797 --> 00:51:45.346 you're having any side effects

NOTE Confidence: 0.98098344

00:51:45.346 --> 00:51:47.650 so we can adjust it and get the

NOTE Confidence: 0.98098344

00:51:47.719 --> 00:51:49.749 best treatment to help improve.

NOTE Confidence: 0.98098344

00:51:49.750 --> 00:51:52.102 The disease and also we want to

NOTE Confidence: 0.98098344

00:51:52.102 --> 00:51:54.153 get a good baseline assessment

NOTE Confidence: 0.98098344

00:51:54.153 --> 00:51:57.033 to make sure the side effects

NOTE Confidence: 0.98098344

00:51:57.033 --> 00:51:59.680 are coming from the medication.

NOTE Confidence: 0.98098344

00:51:59.680 --> 00:52:00.600 And not something else.

NOTE Confidence: 0.98192424

00:52:02.880 --> 00:52:06.504 So I need a good doctor patient team.

NOTE Confidence: 0.98192424

00:52:06.510 --> 00:52:10.155 Relationship. OK, and then these are just

NOTE Confidence: 0.98192424

00:52:10.155 --> 00:52:12.459 resources for you to look up different

NOTE Confidence: 0.98192424

00:52:12.459 --> 00:52:14.574 side effects and different information.

NOTE Confidence: 0.98192424

00:52:14.580 --> 00:52:17.208 So MRF is a good website and then the

NOTE Confidence: 0.98192424

00:52:17.208 --> 00:52:19.062 multiple myeloma support group meets

NOTE Confidence: 0.98192424

00:52:19.062 --> 00:52:21.760 every the last Tuesday of every month.

NOTE Confidence: 0.98192424

00:52:21.760 --> 00:52:24.567 And then I just put in their

NOTE Confidence: 0.98192424

00:52:24.567 --> 00:52:26.200 their phone number and.

NOTE Confidence: 0.98192424

00:52:26.200 --> 00:52:27.444 The contact information if

NOTE Confidence: 0.98192424

00:52:27.444 --> 00:52:28.377 anybody's interested in.

NOTE Confidence: 0.98192424

00:52:28.380 --> 00:52:30.473 I know it's zoom now because because

NOTE Confidence: 0.98192424

00:52:30.473 --> 00:52:32.633 of kovit I don't know if they're

NOTE Confidence: 0.98192424

00:52:32.633 --> 00:52:36.960 planning to go back to in person, but.

NOTE Confidence: 0.98192424

00:52:36.960 --> 00:52:38.768 That is another place.

NOTE Confidence: 0.98192424

00:52:38.768 --> 00:52:40.610 And that's it, I think.

NOTE Confidence: 0.9110213

00:53:00.940 --> 00:53:03.523 So thank you to Doctor Barr and

NOTE Confidence: 0.9110213

00:53:03.523 --> 00:53:05.790 Doctor Browning and Terra for this.

NOTE Confidence: 0.9110213

00:53:05.790 --> 00:53:07.282 Great talks and presentations.

NOTE Confidence: 0.9110213

00:53:07.282 --> 00:53:08.028 Very educational.

NOTE Confidence: 0.9110213

00:53:08.030 --> 00:53:10.921 I think we have a few questions

NOTE Confidence: 0.9110213

00:53:10.921 --> 00:53:13.900 in both the chat and the Q&A.

NOTE Confidence: 0.9110213

00:53:13.900 --> 00:53:17.210 And. I believe, UM, the.

NOTE Confidence: 0.9110213

00:53:17.210 --> 00:53:19.664 There's a few actually discussing whether

NOTE Confidence: 0.9110213

00:53:19.664 --> 00:53:22.978 or not these slides would be made available,

NOTE Confidence: 0.9110213

00:53:22.980 --> 00:53:25.157 and the video of presentation will be

NOTE Confidence: 0.9110213

00:53:25.157 --> 00:53:27.919 posted at the yalecancercenter.org website,

NOTE Confidence: 0.9110213

00:53:27.920 --> 00:53:30.935 and a copy of the slides can be requested

NOTE Confidence: 0.9110213

00:53:30.935 --> 00:53:34.098 by emailing cancer answers at yale.edu,

NOTE Confidence: 0.9110213

00:53:34.100 --> 00:53:37.208 Her Emily, which we can hopefully if

NOTE Confidence: 0.9110213

00:53:37.208 --> 00:53:40.194 Emily maybe you could put that in

NOTE Confidence: 0.9110213

00:53:40.194 --> 00:53:43.139 the chat box for everyone if they

NOTE Confidence: 0.9110213

00:53:43.139 --> 00:53:46.139 were interested in obtaining a copy.

NOTE Confidence: 0.9110213

00:53:46.140 --> 00:53:49.244 I think that answers to our questions on

NOTE Confidence: 0.9110213

00:53:49.244 --> 00:53:52.288 our chat and one of the first questions

NOTE Confidence: 0.9110213

00:53:52.288 --> 00:53:55.184 that we had and that maybe Doctor

NOTE Confidence: 0.9110213

00:53:55.184 --> 00:53:57.890 Barkin answer was regarding where a

NOTE Confidence: 0.9110213

00:53:57.890 --> 00:54:01.606 Lam Lloyd fit on the spectrum of EM guys,

NOTE Confidence: 0.9110213

00:54:01.610 --> 00:54:03.234 to my Lomax, sure.

NOTE Confidence: 0.9110213

00:54:03.234 --> 00:54:03.640 So

NOTE Confidence: 0.92107135

00:54:03.640 --> 00:54:07.160 that's a very good question.

NOTE Confidence: 0.92107135

00:54:07.160 --> 00:54:10.589 It can fit on any of that spectrum actually.

NOTE Confidence: 0.92107135

00:54:10.590 --> 00:54:12.490 So anytime you have, UM,

NOTE Confidence: 0.92107135

00:54:12.490 --> 00:54:14.400 a cell or plasma cell,

NOTE Confidence: 0.92107135

00:54:14.400 --> 00:54:17.067 even the B cell conflicts of lymphomas.

NOTE Confidence: 0.92107135

00:54:17.070 --> 00:54:18.574 So creating these proteins

NOTE Confidence: 0.92107135

00:54:18.574 --> 00:54:20.078 specifically these light chains

NOTE Confidence: 0.92107135

00:54:20.078 --> 00:54:22.020 they can deposit into organs,

NOTE Confidence: 0.92107135

00:54:22.020 --> 00:54:24.748 and there's no way to predict which which

NOTE Confidence: 0.92107135

00:54:24.748 --> 00:54:27.729 patient or which condition will lead amyloid.

NOTE Confidence: 0.92107135

00:54:27.730 --> 00:54:29.515 It's something about the nature

NOTE Confidence: 0.92107135

00:54:29.515 --> 00:54:32.185 of this protein that leads to the

NOTE Confidence: 0.92107135

00:54:32.185 --> 00:54:33.825 deposition into different organs,

NOTE Confidence: 0.92107135

00:54:33.830 --> 00:54:36.116 and that's what Emily is right?

NOTE Confidence: 0.92107135

00:54:36.120 --> 00:54:38.080 So you can get it.

NOTE Confidence: 0.92107135

00:54:38.080 --> 00:54:40.243 With us you can get a smoldering

NOTE Confidence: 0.92107135

00:54:40.243 --> 00:54:42.860 and you can get it in the same

NOTE Confidence: 0.92107135

00:54:42.860 --> 00:54:44.475 time that you have myeloma,

NOTE Confidence: 0.92107135

00:54:44.480 --> 00:54:46.466 so this is something we as

NOTE Confidence: 0.92107135

00:54:46.466 --> 00:54:48.320 physicians I think about and UM,

NOTE Confidence: 0.92107135

00:54:48.320 --> 00:54:50.560 no ask you questions that make us,

NOTE Confidence: 0.92107135

00:54:50.560 --> 00:54:52.800 UM, you to screen for these things.

NOTE Confidence: 0.92107135

00:54:52.800 --> 00:54:54.795 Ask you questions that if if it

NOTE Confidence: 0.92107135

00:54:54.795 --> 00:54:56.929 is positive that makes us think we

NOTE Confidence: 0.92107135

00:54:56.929 --> 00:54:58.747 should I look deeper into whether

NOTE Confidence: 0.92107135

00:54:58.813 --> 00:55:00.477 there is amyloid deposition.

NOTE Confidence: 0.92107135

00:55:00.480 --> 00:55:02.080 So it's a good question.

NOTE Confidence: 0.9604375

00:55:08.280 --> 00:55:10.090 OK, uh, thanks no Friday.

NOTE Confidence: 0.9604375

00:55:10.090 --> 00:55:12.918 I do believe Emily posted in the

NOTE Confidence: 0.9604375

00:55:12.918 --> 00:55:15.903 chat now where the slides could be

NOTE Confidence: 0.9604375

00:55:15.903 --> 00:55:18.950 obtained if he would like her copy.

NOTE Confidence: 0.9604375

00:55:18.950 --> 00:55:21.386 And we had a few questions.

NOTE Confidence: 0.9604375

00:55:21.390 --> 00:55:23.826 Then over in the Q&A that

NOTE Confidence: 0.9604375

00:55:23.826 --> 00:55:25.450 whoever wants to tag,

NOTE Confidence: 0.9604375

00:55:25.450 --> 00:55:27.977 take a stab at them regarding the

NOTE Confidence: 0.9604375

00:55:27.977 --> 00:55:30.052 effectiveness of the COVID vaccine

NOTE Confidence: 0.9604375

00:55:30.052 --> 00:55:32.347 for our multiple myeloma patients,

NOTE Confidence: 0.9604375

00:55:32.350 --> 00:55:34.400 and what precautions should someone

NOTE Confidence: 0.9604375

00:55:34.400 --> 00:55:37.086 still be taking either around other

NOTE Confidence: 0.9604375

00:55:37.086 --> 00:55:39.358 vaccinated or unvaccinated individuals?

NOTE Confidence: 0.9604375

00:55:39.360 --> 00:55:40.722 So I don't know who wants

NOTE Confidence: 0.9604375

00:55:40.722 --> 00:55:42.000 to brave the COVID world.

NOTE Confidence: 0.95552003

00:55:42.940 --> 00:55:46.468 I can answer that one, so I think it's

NOTE Confidence: 0.95552003

00:55:46.468 --> 00:55:48.428 obviously a very important question,

NOTE Confidence: 0.95552003

00:55:48.430 --> 00:55:51.686 and I think you know we're learning more

NOTE Confidence: 0.95552003

00:55:51.686 --> 00:55:54.700 about it as time goes on, you know,

NOTE Confidence: 0.95552003

00:55:54.700 --> 00:55:57.040 I think studies have suggested that

NOTE Confidence: 0.95552003

00:55:57.040 --> 00:55:59.400 patients myeloma patients on a treatment,

NOTE Confidence: 0.95552003

00:55:59.400 --> 00:56:01.265 and patients with other blood

NOTE Confidence: 0.95552003

00:56:01.265 --> 00:56:04.020 disorders may have less of a response

NOTE Confidence: 0.95552003

00:56:04.020 --> 00:56:06.065 to our available COVID vaccines.

NOTE Confidence: 0.95552003

00:56:06.070 --> 00:56:07.219 You know. Fortunately,

NOTE Confidence: 0.95552003

00:56:07.219 --> 00:56:10.380 the COVID vaccine start at a high level,

NOTE Confidence: 0.95552003

00:56:10.380 --> 00:56:12.340 very high level of effectiveness,

NOTE Confidence: 0.95552003

00:56:12.340 --> 00:56:13.948 and so our recommendation

NOTE Confidence: 0.95552003

00:56:13.948 --> 00:56:15.556 to our myeloma patients.

NOTE Confidence: 0.95552003

00:56:15.560 --> 00:56:18.068 Is still to get the vaccine,

NOTE Confidence: 0.95552003

00:56:18.070 --> 00:56:21.166 but I think it is important to know that

NOTE Confidence: 0.95552003

00:56:21.166 --> 00:56:24.568 that maintaining preventative measures like.

NOTE Confidence: 0.95552003

00:56:24.570 --> 00:56:26.225 Mask wearing and good hand

NOTE Confidence: 0.95552003

00:56:26.225 --> 00:56:27.880 washing and avoiding sick people.

NOTE Confidence: 0.95552003

00:56:27.880 --> 00:56:29.136 It's probably more important

NOTE Confidence: 0.95552003

00:56:29.136 --> 00:56:31.020 in our in our myeloma patients

NOTE Confidence: 0.95552003

00:56:31.073 --> 00:56:32.509 and the general population,

NOTE Confidence: 0.95552003

00:56:32.510 --> 00:56:35.078 so I would recommend that all my lower

NOTE Confidence: 0.95552003

00:56:35.078 --> 00:56:37.807 patients get the vaccine as soon as possible.

NOTE Confidence: 0.95552003

00:56:37.810 --> 00:56:39.470 If they have not already,

NOTE Confidence: 0.95552003

00:56:39.470 --> 00:56:40.794 but continue to practice

NOTE Confidence: 0.95552003

00:56:40.794 --> 00:56:42.780 measures to try to avoid COVID.

NOTE Confidence: 0.9809966

00:56:45.560 --> 00:56:46.628 And and I

NOTE Confidence: 0.9809966

00:56:46.630 --> 00:56:48.471 would add to that that there were

NOTE Confidence: 0.9809966

00:56:48.471 --> 00:56:50.121 a couple of recent publications

NOTE Confidence: 0.9809966

00:56:50.121 --> 00:56:52.111 about myeloma patients and their

NOTE Confidence: 0.9809966

00:56:52.111 --> 00:56:54.130 response to the vaccinations.

NOTE Confidence: 0.9809966

00:56:54.130 --> 00:56:56.664 And yes, it is evident that the

NOTE Confidence: 0.9809966

00:56:56.664 --> 00:56:58.409 antibody production may be lower,

NOTE Confidence: 0.9809966

00:56:58.410 --> 00:57:00.552 like 50% of what you might

NOTE Confidence: 0.9809966

00:57:00.552 --> 00:57:01.980 get in healthier population.

NOTE Confidence: 0.9809966

00:57:01.980 --> 00:57:04.056 But there are also very significant

NOTE Confidence: 0.9809966

00:57:04.056 --> 00:57:06.270 cell responses in their immune cells,

NOTE Confidence: 0.9809966

00:57:06.270 --> 00:57:08.678 T cells and some of the T cells

NOTE Confidence: 0.9809966

00:57:08.678 --> 00:57:10.908 and B cell responses and.

NOTE Confidence: 0.9809966

00:57:10.910 --> 00:57:12.854 And that's what provides protection to

NOTE Confidence: 0.9809966

00:57:12.854 --> 00:57:14.830 model of patients after vaccination.

NOTE Confidence: 0.9826401

00:57:17.960 --> 00:57:19.590 Yeah, I think to follow

NOTE Confidence: 0.9826401

00:57:19.590 --> 00:57:21.450 up on that and the group

NOTE Confidence: 0.9826401

00:57:21.528 --> 00:57:23.818 at Mount Sinai published some

NOTE Confidence: 0.9826401

00:57:23.818 --> 00:57:26.108 of their findings just recently.

NOTE Confidence: 0.9826401

00:57:26.110 --> 00:57:28.588 Actually, on the 28th of this month

NOTE Confidence: 0.9826401

00:57:28.588 --> 00:57:31.383 and they had looked at 320 individuals

NOTE Confidence: 0.9826401

00:57:31.383 --> 00:57:33.861 who had had the COVID vaccine,

NOTE Confidence: 0.9826401

00:57:33.870 --> 00:57:36.579 260 of them received either the Pfizer,

NOTE Confidence: 0.9826401

00:57:36.580 --> 00:57:39.191 the Moderna, so the two dose and

NOTE Confidence: 0.9826401

00:57:39.191 --> 00:57:42.020 what they had shown was about 16%.

NOTE Confidence: 0.9826401

00:57:42.020 --> 00:57:42.788 Fifteen point.

NOTE Confidence: 0.9826401

00:57:42.788 --> 00:57:45.860 8% of patients did not mount any detectable

NOTE Confidence: 0.9826401

00:57:45.926 --> 00:57:48.308 antibodies compared to the other 84.

NOTE Confidence: 0.9826401

00:57:48.310 --> 00:57:50.488 Your dad, but that response was

NOTE Confidence: 0.9826401

00:57:50.488 --> 00:57:52.674 very variable and they did find

NOTE Confidence: 0.9826401

00:57:52.674 --> 00:57:54.654 that patients who had had COVID

NOTE Confidence: 0.9826401

00:57:54.654 --> 00:57:56.708 prior to being vaccinated had

NOTE Confidence: 0.9826401

00:57:56.708 --> 00:57:58.476 a higher immune response.

NOTE Confidence: 0.9826401

00:57:58.480 --> 00:57:59.390 Tattoo that.

NOTE Confidence: 0.9763942

00:58:01.490 --> 00:58:03.786 OK, and we have some other questions.

NOTE Confidence: 0.9763942

00:58:03.790 --> 00:58:05.524 I think 2 regarding acyclovir are

NOTE Confidence: 0.9763942

00:58:05.524 --> 00:58:07.398 and whether or not an individual

NOTE Confidence: 0.9763942

00:58:07.398 --> 00:58:09.366 could stop acyclovir if they had

NOTE Confidence: 0.9763942

00:58:09.366 --> 00:58:11.029 received the shingles vaccine.

NOTE Confidence: 0.9763942

00:58:11.030 --> 00:58:13.433 So I don't know if Terra if you want

NOTE Confidence: 0.9763942

00:58:13.433 --> 00:58:15.969 to address that under side effects.

NOTE Confidence: 0.9763942

00:58:15.970 --> 00:58:17.278 Yeah sure I meant

NOTE Confidence: 0.9763942

00:58:17.280 --> 00:58:18.930 to say that actually no.

NOTE Confidence: 0.9763942

00:58:18.930 --> 00:58:21.554 I mean, if you had the shingles vaccine,

NOTE Confidence: 0.9763942

00:58:21.560 --> 00:58:23.856 you still need to stay on acyclovir.

NOTE Confidence: 0.9763942

00:58:23.860 --> 00:58:25.500 If you're getting a monoclonal

NOTE Confidence: 0.9763942

00:58:25.500 --> 00:58:26.812 antibody or producing inhibitor,

NOTE Confidence: 0.9763942

00:58:26.820 --> 00:58:28.850 sometimes we will stop the if you're

NOTE Confidence: 0.9763942

00:58:28.850 --> 00:58:31.148 just on an image for maintenance.

NOTE Confidence: 0.9763942

00:58:31.150 --> 00:58:33.075 You can you can stop the acyclovir,

NOTE Confidence: 0.9763942

00:58:33.080 --> 00:58:34.646 but otherwise you need to stay

NOTE Confidence: 0.9763942

00:58:34.646 --> 00:58:36.379 on it regardless of the vaccine.

NOTE Confidence: 0.906833747857143

00:58:43.680 --> 00:58:47.144 OK. Uh, we have a few questions coming

NOTE Confidence: 0.906833747857143

00:58:47.144 --> 00:58:50.808 in and about Carty and transplants.

NOTE Confidence: 0.906833747857143

00:58:50.810 --> 00:58:52.830 And so maybe Doctor Power

NOTE Confidence: 0.906833747857143

00:58:52.830 --> 00:58:55.440 you can handle some of these.

NOTE Confidence: 0.906833747857143

00:58:55.440 --> 00:58:58.387 Someone is asking whether or not there's

NOTE Confidence: 0.906833747857143

00:58:58.387 --> 00:59:00.080 hospitalization involved with Carty,

NOTE Confidence: 0.906833747857143

00:59:00.080 --> 00:59:04.640 and if So what is that duration? Yes,

NOTE Confidence: 0.9840932

00:59:04.640 --> 00:59:06.152 so there is hospitalization

NOTE Confidence: 0.9840932

00:59:06.152 --> 00:59:08.042 involved with car T therapy,

NOTE Confidence: 0.9840932

00:59:08.050 --> 00:59:09.562 and that's really to

NOTE Confidence: 0.9840932

00:59:09.562 --> 00:59:11.452 follow on the side effect.

NOTE Confidence: 0.9840932

00:59:11.460 --> 00:59:12.471 Expected side effects,

NOTE Confidence: 0.9840932

00:59:12.471 --> 00:59:15.262 which are this side that kind of lease

NOTE Confidence: 0.9840932

00:59:15.262 --> 00:59:17.470 which majority of patients do get

NOTE Confidence: 0.9840932

00:59:17.470 --> 00:59:19.799 and then potentially even neurotoxicity.

NOTE Confidence: 0.9840932

00:59:19.800 --> 00:59:22.747 So at least seven days but sometimes

NOTE Confidence: 0.9840932

00:59:22.747 --> 00:59:25.108 longer really depends on how you do.

NOTE Confidence: 0.9718492

00:59:27.790 --> 00:59:29.735 OK, great and another question

NOTE Confidence: 0.9718492

00:59:29.735 --> 00:59:32.163 that's coming in regarding on stem

NOTE Confidence: 0.9718492

00:59:32.163 --> 00:59:34.218 cell transplant and side effects.

NOTE Confidence: 0.9718492

00:59:34.220 --> 00:59:36.686 As a questioning at about the

NOTE Confidence: 0.9718492

00:59:36.686 --> 00:59:38.806 malignancies that we should be

NOTE Confidence: 0.9718492

00:59:38.806 --> 00:59:41.188 looking out for following a stem

NOTE Confidence: 0.9718492

00:59:41.188 --> 00:59:43.599 cell transplant and use of REVLIMID

NOTE Confidence: 0.9718492

00:59:43.599 --> 00:59:45.891 maintenance so I don't know if

NOTE Confidence: 0.9718492

00:59:45.891 --> 00:59:47.868 either Natalia know first Sabrina

NOTE Confidence: 0.9718492

00:59:47.868 --> 00:59:50.700 would like to answer one of that.

NOTE Confidence: 0.9678249

00:59:52.460 --> 00:59:54.526 I can respond to that.

NOTE Confidence: 0.9678249

00:59:54.526 --> 00:59:56.998 I can respond to that Terry.

NOTE Confidence: 0.9678249

00:59:57.000 --> 00:59:59.478 So in the studies with REVLIMID

NOTE Confidence: 0.9678249

00:59:59.478 --> 01:00:00.717 or Lenalidomide maintenance,

NOTE Confidence: 0.9678249

01:00:00.720 --> 01:00:03.950 there was a slight increase in the absolute

NOTE Confidence: 0.9678249

01:00:03.950 --> 01:00:06.500 risk of developing second primary cancers,

NOTE Confidence: 0.9678249

01:00:06.500 --> 01:00:08.156 and there was approximately

NOTE Confidence: 0.9678249

01:00:08.156 --> 01:00:09.806 3% absolute increase risk,

NOTE Confidence: 0.9678249

01:00:09.806 --> 01:00:12.278 so the risk is very small,

NOTE Confidence: 0.9678249

01:00:12.280 --> 01:00:15.048 and the types of cancers that were

NOTE Confidence: 0.9678249

01:00:15.048 --> 01:00:17.340 observed or mostly another blood related

NOTE Confidence: 0.9678249

01:00:17.403 --> 01:00:19.718 malignancy or bone marrow malignancy.

NOTE Confidence: 0.9678249

01:00:19.720 --> 01:00:22.611 There were a few cases of non

NOTE Confidence: 0.9678249

01:00:22.611 --> 01:00:23.890 Hodgkin lymphoma, leukemia,

NOTE Confidence: 0.9678249

01:00:23.890 --> 01:00:24.790 myelodysplastic syndrome.

NOTE Confidence: 0.9678249

01:00:24.790 --> 01:00:25.690 These were.

NOTE Confidence: 0.9678249

01:00:25.690 --> 01:00:28.018 Types of bone marrow cancers that

NOTE Confidence: 0.9678249

01:00:28.018 --> 01:00:30.011 developed overtime in among those

NOTE Confidence: 0.9678249

01:00:30.011 --> 01:00:31.866 observed on the trials there.

NOTE Confidence: 0.9678249

01:00:31.870 --> 01:00:33.795 But there were also several

NOTE Confidence: 0.9678249

01:00:33.795 --> 01:00:35.335 solid tumors as well,

NOTE Confidence: 0.9678249

01:00:35.340 --> 01:00:38.816 and this is what we see in our practice.

NOTE Confidence: 0.9678249

01:00:38.816 --> 01:00:40.739 So the conclusion is that

NOTE Confidence: 0.9678249

01:00:40.740 --> 01:00:42.674 majority of the second primary

NOTE Confidence: 0.9678249

01:00:42.674 --> 01:00:44.845 cancers would be blood related,

NOTE Confidence: 0.9678249

01:00:44.845 --> 01:00:46.705 but overall absolute increased

NOTE Confidence: 0.9678249

01:00:46.705 --> 01:00:48.750 risk of secondary cancers is

NOTE Confidence: 0.9678249

01:00:48.750 --> 01:00:50.773 on the order of two to 3%,

NOTE Confidence: 0.9678249

01:00:50.780 --> 01:00:53.812 so the risk is small and the benefits

NOTE Confidence: 0.9678249

01:00:53.812 --> 01:00:55.910 certainly outweighs benefits a benefit.

NOTE Confidence: 0.9678249

01:00:55.910 --> 01:00:57.262 A problem in prolonging

NOTE Confidence: 0.9678249

01:00:57.262 --> 01:00:58.614 survival awhile and maintenance

NOTE Confidence: 0.9678249

01:00:58.614 --> 01:00:59.810 therapy outweighs that risk.

NOTE Confidence: 0.9833573

01:01:04.470 --> 01:01:05.976 Great thank you Natalia. Does anyone

NOTE Confidence: 0.9833573

01:01:05.976 --> 01:01:07.548 have anything else to add on that?

NOTE Confidence: 0.9526373

01:01:10.270 --> 01:01:12.556 And if not, we'll move on

NOTE Confidence: 0.9526373

01:01:12.556 --> 01:01:14.080 to another question is,

NOTE Confidence: 0.9526373

01:01:14.080 --> 01:01:16.942 as far as if an individual has a medical

NOTE Confidence: 0.9526373

01:01:16.942 --> 01:01:18.661 officer of undetermined significance

NOTE Confidence: 0.9526373

01:01:18.661 --> 01:01:21.313 for an extended period of time,

NOTE Confidence: 0.9526373

01:01:21.320 --> 01:01:24.368 what is the likelihood to remain at that?

NOTE Confidence: 0.9526373

01:01:24.370 --> 01:01:26.275 I'm guess level versus risk

NOTE Confidence: 0.9526373

01:01:26.275 --> 01:01:27.799 of transformation to myeloma.

NOTE Confidence: 0.98028296

01:01:30.040 --> 01:01:32.266 I can answer that so you know,

NOTE Confidence: 0.98028296

01:01:32.270 --> 01:01:34.510 come with them guys. As I mentioned,

NOTE Confidence: 0.98028296

01:01:34.510 --> 01:01:37.102 the risk of progression is 1% per year,

NOTE Confidence: 0.98028296

01:01:37.102 --> 01:01:39.489 but this is an average and there's

NOTE Confidence: 0.98028296

01:01:39.489 --> 01:01:41.082 actually other markers we look

NOTE Confidence: 0.98028296

01:01:41.082 --> 01:01:43.439 at to assess the risk of M gusts.

NOTE Confidence: 0.98028296

01:01:43.440 --> 01:01:45.666 These are things like elevated light chains.

NOTE Confidence: 0.98028296

01:01:45.670 --> 01:01:47.270 UM, the amount of protein,

NOTE Confidence: 0.98028296

01:01:47.270 --> 01:01:49.496 the monoclonal protein, and I'd say yes,

NOTE Confidence: 0.98028296

01:01:49.500 --> 01:01:51.733 time does give us some information, right?

NOTE Confidence: 0.98028296

01:01:51.733 --> 01:01:53.994 If someone said M ghosts and everything

NOTE Confidence: 0.98028296

01:01:53.994 --> 01:01:55.879 is completely stable for five years,

NOTE Confidence: 0.98028296

01:01:55.880 --> 01:01:56.837 that is informative.

NOTE Confidence: 0.98028296

01:01:56.837 --> 01:01:59.070 And in in actually smaller in world,

NOTE Confidence: 0.98028296

01:01:59.070 --> 01:02:00.446 we know as we.

NOTE Confidence: 0.98028296

01:02:00.446 --> 01:02:01.520 Go, you know,

NOTE Confidence: 0.98028296

01:02:01.520 --> 01:02:04.075 as we follow patients overtime that 10%

NOTE Confidence: 0.98028296

01:02:04.080 --> 01:02:07.365 risk does go down after five years or so.

NOTE Confidence: 0.98028296

01:02:07.370 --> 01:02:09.200 If there is no progression.

NOTE Confidence: 0.98028296

01:02:09.200 --> 01:02:11.396 So so yes, time is important,

NOTE Confidence: 0.98028296

01:02:11.400 --> 01:02:13.596 but it gives us information about

NOTE Confidence: 0.98028296

01:02:13.596 --> 01:02:15.060 the behavior for disease.

NOTE Confidence: 0.9862065

01:02:17.420 --> 01:02:20.340 Great so I love that line of questions.

NOTE Confidence: 0.9862065

01:02:20.340 --> 01:02:22.314 We did have some questions that had

NOTE Confidence: 0.9862065

01:02:22.314 --> 01:02:24.108 come in before the presentations

NOTE Confidence: 0.9862065

01:02:24.108 --> 01:02:26.313 and those were dealing with

NOTE Confidence: 0.9862065

01:02:26.313 --> 01:02:27.636 smoldering myeloma specifically.

NOTE Confidence: 0.9862065

01:02:27.640 --> 01:02:29.590 If there's anything in individual can

NOTE Confidence: 0.9862065

01:02:29.590 --> 01:02:31.776 do to help prevent the progression

NOTE Confidence: 0.9862065

01:02:31.776 --> 01:02:33.846 of smoldering to multiple myeloma?

NOTE Confidence: 0.9862065

01:02:33.850 --> 01:02:36.069 If So what does that look like

NOTE Confidence: 0.9862065

01:02:36.069 --> 01:02:37.953 and what treatments are available

NOTE Confidence: 0.9862065

01:02:37.953 --> 01:02:39.685 for small joint individual?

NOTE Confidence: 0.9862065

01:02:39.690 --> 01:02:41.814 I know Doctor Browning you had

NOTE Confidence: 0.9862065

01:02:41.814 --> 01:02:44.069 mentioned that there are some trials,

NOTE Confidence: 0.9862065

01:02:44.070 --> 01:02:45.890 so would you mind enlightening

NOTE Confidence: 0.9862065

01:02:45.890 --> 01:02:47.346 us on smoldering myeloma?

NOTE Confidence: 0.9410894

01:02:47.970 --> 01:02:48.696 Sure, absolutely.

NOTE Confidence: 0.9410894

01:02:48.696 --> 01:02:51.940 So similar to our approach with an M Gus.

NOTE Confidence: 0.9410894

01:02:51.940 --> 01:02:53.745 When we look at somebody

NOTE Confidence: 0.9410894

01:02:53.745 --> 01:02:54.828 with smoldering myeloma,

NOTE Confidence: 0.9410894

01:02:54.830 --> 01:02:56.996 we want to understand their risk

NOTE Confidence: 0.9410894

01:02:56.996 --> 01:02:59.725 and you know, we we do that by

NOTE Confidence: 0.9410894

01:02:59.725 --> 01:03:02.050 looking at a couple of things.

NOTE Confidence: 0.9410894

01:03:02.050 --> 01:03:04.306 The percentage of a plasma cells

NOTE Confidence: 0.9410894

01:03:04.306 --> 01:03:06.978 that are in the bone marrow as

NOTE Confidence: 0.9410894

01:03:06.978 --> 01:03:09.505 well as the size of the protein

NOTE Confidence: 0.9410894

01:03:09.584 --> 01:03:12.216 in the blood and the size of or

NOTE Confidence: 0.9410894

01:03:12.216 --> 01:03:14.320 the amount of free light chains

NOTE Confidence: 0.9410894

01:03:14.320 --> 01:03:17.209 that we see in the blood as well.

NOTE Confidence: 0.9410894

01:03:17.210 --> 01:03:18.986 And patients who fall.

NOTE Confidence: 0.9410894

01:03:18.986 --> 01:03:21.895 Uh, into the intermediate or higher

NOTE Confidence: 0.9410894

01:03:21.895 --> 01:03:24.360 risk category for smoldering myeloma.

NOTE Confidence: 0.9410894

01:03:24.360 --> 01:03:27.318 There has been evidence that earlier

NOTE Confidence: 0.9410894

01:03:27.318 --> 01:03:29.290 treatment with the medication,

NOTE Confidence: 0.9410894

01:03:29.290 --> 01:03:31.760 Lenalidomide has been helpful now,

NOTE Confidence: 0.9410894

01:03:31.760 --> 01:03:32.744 as occurred.

NOTE Confidence: 0.9410894

01:03:32.744 --> 01:03:34.220 Doctor Parker stated,

NOTE Confidence: 0.9410894

01:03:34.220 --> 01:03:37.310 there are more trials looking at

NOTE Confidence: 0.9410894

01:03:37.310 --> 01:03:39.370 either additions to Lenalidomide

NOTE Confidence: 0.9410894

01:03:39.449 --> 01:03:42.299 or other combinations of therapies

NOTE Confidence: 0.9410894

01:03:42.299 --> 01:03:44.579 and their effectiveness in

NOTE Confidence: 0.9410894

01:03:44.579 --> 01:03:46.500 preventing progression too.

NOTE Confidence: 0.9410894

01:03:46.500 --> 01:03:48.100 End organ dysfunction in patients

NOTE Confidence: 0.9410894

01:03:48.100 --> 01:03:49.380 who have smoldering myeloma.

NOTE Confidence: 0.9410894

01:03:49.380 --> 01:03:51.300 So to answer the first question,

NOTE Confidence: 0.9410894

01:03:51.300 --> 01:03:51.956 you know,

NOTE Confidence: 0.9410894

01:03:51.956 --> 01:03:53.596 I don't think there's anything

NOTE Confidence: 0.9410894

01:03:53.596 --> 01:03:54.935 in particular that individuals

NOTE Confidence: 0.9410894

01:03:54.935 --> 01:03:56.415 can can do you know?

NOTE Confidence: 0.9410894

01:03:56.420 --> 01:03:58.660 I think when we get this question,

NOTE Confidence: 0.9410894

01:03:58.660 --> 01:04:00.442 you know maintaining a healthy diet

NOTE Confidence: 0.9410894

01:04:00.442 --> 01:04:02.180 and physical activity is important.

NOTE Confidence: 0.9410894

01:04:02.180 --> 01:04:02.978 But but really,

NOTE Confidence: 0.9410894

01:04:02.978 --> 01:04:04.840 it depends on kind of the the

NOTE Confidence: 0.9410894

01:04:04.906 --> 01:04:06.741 risk of the smoldering myeloma

NOTE Confidence: 0.9410894

01:04:06.741 --> 01:04:08.576 and how it progresses overtime.

NOTE Confidence: 0.9852004

01:04:11.780 --> 01:04:12.980 I think there was

NOTE Confidence: 0.9852004

01:04:12.980 --> 01:04:14.786 a question on the generic Lenalidomide.

NOTE Confidence: 0.9717348

01:04:16.990 --> 01:04:19.660 Yeah, and I think there's none that

NOTE Confidence: 0.9717348

01:04:19.660 --> 01:04:21.570 are currently available for the

NOTE Confidence: 0.9717348

01:04:21.645 --> 01:04:23.869 United States as an approved use.

NOTE Confidence: 0.9717348

01:04:23.870 --> 01:04:26.354 As you know, the REVLIMID slash

NOTE Confidence: 0.9717348

01:04:26.354 --> 01:04:28.415 Lenalidomide produced by Celgene is

NOTE Confidence: 0.9717348

01:04:28.415 --> 01:04:30.739 currently off the label of the patent,

NOTE Confidence: 0.9717348

01:04:30.740 --> 01:04:32.650 meaning the patent has expired,

NOTE Confidence: 0.9717348

01:04:32.650 --> 01:04:33.380 but unfortunately,

NOTE Confidence: 0.9717348

01:04:33.380 --> 01:04:36.791 the price of the drug has not been reduced

NOTE Confidence: 0.9717348

01:04:36.791 --> 01:04:39.448 across the world in Europe and Asia.

NOTE Confidence: 0.9717348

01:04:39.448 --> 01:04:41.168 There are several similar drugs

NOTE Confidence: 0.9717348

01:04:41.168 --> 01:04:43.350 you may call them biosimilars,

NOTE Confidence: 0.9717348

01:04:43.350 --> 01:04:46.108 or the generics of these emit medications.

NOTE Confidence: 0.9717348

01:04:46.110 --> 01:04:47.394 Lenalidomide or pomalidomide,

NOTE Confidence: 0.9717348

01:04:47.394 --> 01:04:49.962 and these are produced in various

NOTE Confidence: 0.9717348

01:04:49.962 --> 01:04:51.628 parts of Europe and Asia.

NOTE Confidence: 0.9717348

01:04:51.630 --> 01:04:52.917 So, for instance,

NOTE Confidence: 0.9717348

01:04:52.917 --> 01:04:56.402 you may hear people using Indian when a

NOTE Confidence: 0.9717348

01:04:56.402 --> 01:04:59.188 little mind and similar drugs and and

NOTE Confidence: 0.9717348

01:04:59.188 --> 01:05:01.473 they appear to be just as effective.

NOTE Confidence: 0.9717348

01:05:01.473 --> 01:05:04.336 I think there there were some of the

NOTE Confidence: 0.9717348

01:05:04.336 --> 01:05:07.114 studies coming out of Asia that that

NOTE Confidence: 0.9717348

01:05:07.114 --> 01:05:09.748 showed efficacy that's kind of equivalent,

NOTE Confidence: 0.9717348

01:05:09.750 --> 01:05:13.260 so. But uhm.

NOTE Confidence: 0.9717348

01:05:13.260 --> 01:05:15.708 I'm not aware of the approved US use.

NOTE Confidence: 0.975602500000001

01:05:20.750 --> 01:05:23.720 OK, and then one more that's in the chat

NOTE Confidence: 0.975602500000001

01:05:23.720 --> 01:05:27.009 and then we can go to another one that

NOTE Confidence: 0.975602500000001

01:05:27.009 --> 01:05:30.467 was submitted ahead of time is do the

NOTE Confidence: 0.975602500000001

01:05:30.467 --> 01:05:32.598 panelists recommend patients having their

NOTE Confidence: 0.975602500000001

01:05:32.598 --> 01:05:34.746 cells sequenced or and next generation

NOTE Confidence: 0.975602500000001

01:05:34.746 --> 01:05:37.099 sequencing done to look for targeted

NOTE Confidence: 0.975602500000001

01:05:37.099 --> 01:05:39.124 treatment or for personalized medicine?

NOTE Confidence: 0.975602500000001

01:05:39.130 --> 01:05:42.172 And so maybe we can go around having having

NOTE Confidence: 0.975602500000001

01:05:42.172 --> 01:05:45.259 each of the panelists answer that question.

NOTE Confidence: 0.93897206

01:05:47.620 --> 01:05:50.343 Sorry, I think that's a very interesting

NOTE Confidence: 0.93897206

01:05:50.343 --> 01:05:53.106 question and under you know, uh, the right?

NOTE Confidence: 0.93897206

01:05:53.106 --> 01:05:55.290 UM study where you can use this

NOTE Confidence: 0.93897206

01:05:55.364 --> 01:05:57.468 information to guide treatment.

NOTE Confidence: 0.93897206

01:05:57.470 --> 01:06:00.126 I think it's very useful. It's not,

NOTE Confidence: 0.93897206

01:06:00.126 --> 01:06:02.394 it's not something that's routinely done.

NOTE Confidence: 0.93897206

01:06:02.400 --> 01:06:04.705 It's not an FDA approved, UM.

NOTE Confidence: 0.93897206

01:06:04.705 --> 01:06:06.730 A way to do things,

NOTE Confidence: 0.93897206

01:06:06.730 --> 01:06:08.994 but I think it's in the research world.

NOTE Confidence: 0.93897206

01:06:09.000 --> 01:06:10.140 I would recommend it.

NOTE Confidence: 0.98434293

01:06:13.260 --> 01:06:15.640 Yeah, I would agree with that I.

NOTE Confidence: 0.98434293

01:06:15.640 --> 01:06:17.680 I think it's not a part

NOTE Confidence: 0.98434293

01:06:17.680 --> 01:06:19.040 of our standard practice,

NOTE Confidence: 0.98434293

01:06:19.040 --> 01:06:21.336 but I think there's a lot to learn

NOTE Confidence: 0.98434293

01:06:21.336 --> 01:06:23.944 from that and and I agree that no

NOTE Confidence: 0.98434293

01:06:23.944 --> 01:06:25.709 incorporation of that into clinical

NOTE Confidence: 0.98434293

01:06:25.709 --> 01:06:27.669 trials moving forward is important

NOTE Confidence: 0.98434293

01:06:27.669 --> 01:06:30.260 and I think will be enlightening and

NOTE Confidence: 0.98434293

01:06:30.260 --> 01:06:32.640 how to best guide our our treatments.

NOTE Confidence: 0.98434293

01:06:32.640 --> 01:06:34.894 As you saw, for patients who have

NOTE Confidence: 0.98434293

01:06:34.894 --> 01:06:36.380 relapsed or refractory disease,

NOTE Confidence: 0.98434293

01:06:36.380 --> 01:06:39.100 we now have a whole number of treatments,

NOTE Confidence: 0.98434293

01:06:39.100 --> 01:06:41.290 but understanding the sequencing of what

NOTE Confidence: 0.98434293

01:06:41.290 --> 01:06:44.298 to use first you know is is a challenge.

NOTE Confidence: 0.98434293

01:06:44.300 --> 01:06:46.526 And I think understanding more about

NOTE Confidence: 0.98434293

01:06:46.526 --> 01:06:49.079 you know the specifics of each patient.

NOTE Confidence: 0.98434293

01:06:49.080 --> 01:06:50.920 My Loma may help that.

NOTE Confidence: 0.9877601

01:06:55.140 --> 01:06:56.165 I don't have money.

NOTE Confidence: 0.9877601

01:06:56.165 --> 01:06:57.950 I don't have much to add to

NOTE Confidence: 0.9877601

01:06:57.950 --> 01:06:59.730 that. I mean, I think it's been

NOTE Confidence: 0.9877601

01:06:59.730 --> 01:07:01.005 it's been around for awhile.

NOTE Confidence: 0.9877601

01:07:01.010 --> 01:07:03.154 Just having it has not been approved but

NOTE Confidence: 0.9877601

01:07:03.154 --> 01:07:05.340 it would be great if we could do that.

NOTE Confidence: 0.9877601

01:07:05.340 --> 01:07:06.615 'cause there's so many different

NOTE Confidence: 0.9877601

01:07:06.615 --> 01:07:07.380 presentations of myeloma.

NOTE Confidence: 0.9877601

01:07:07.380 --> 01:07:09.420 If we could know how to target different,

NOTE Confidence: 0.9877601

01:07:09.420 --> 01:07:10.695 you know, specific patients that

NOTE Confidence: 0.9877601

01:07:10.695 --> 01:07:11.970 have different mutations and things,

NOTE Confidence: 0.9877601

01:07:11.970 --> 01:07:13.580 but I don't know how far they

NOTE Confidence: 0.9877601

01:07:13.580 --> 01:07:15.030 are like getting this approved.

NOTE Confidence: 0.983915199999999

01:07:20.600 --> 01:07:23.288 Great, so it sounds like more to come

NOTE Confidence: 0.983915199999999

01:07:23.288 --> 01:07:26.081 and then again one last question that

NOTE Confidence: 0.983915199999999

01:07:26.081 --> 01:07:29.225 was submitted ahead of time which was

NOTE Confidence: 0.983915199999999

01:07:29.225 --> 01:07:31.269 dealing with solitary plasmacytomas

NOTE Confidence: 0.983915199999999

01:07:31.269 --> 01:07:34.172 and specifically what is the risk

NOTE Confidence: 0.983915199999999

01:07:34.172 --> 01:07:36.302 of progression to multiple myeloma

NOTE Confidence: 0.983915199999999

01:07:36.302 --> 01:07:38.560 with the solitary plasmacytoma?

NOTE Confidence: 0.983915199999999

01:07:38.560 --> 01:07:42.010 And and so I don't know if Doctor Bar you

NOTE Confidence: 0.983915199999999

01:07:42.104 --> 01:07:45.310 wanna take that or doctor Pepper eats.

NOTE Confidence: 0.9749503

01:07:49.890 --> 01:07:52.576 I'm sorry, can you rephrase the question?

NOTE Confidence: 0.9749503

01:07:52.576 --> 01:07:55.180 Yes, so the question that was submitted

NOTE Confidence: 0.9749503

01:07:55.245 --> 01:07:57.375 was regarding solitary plasma cytoma's

NOTE Confidence: 0.9749503

01:07:57.375 --> 01:07:59.690 and risk factors for progression to

NOTE Confidence: 0.9749503

01:07:59.690 --> 01:08:00.869 multiple myeloma. So

NOTE Confidence: 0.9749503

01:08:00.870 --> 01:08:04.003 in the in some of the largest cohorts

NOTE Confidence: 0.9749503

01:08:04.003 --> 01:08:06.780 out of US and European experience says

NOTE Confidence: 0.9749503

01:08:06.780 --> 01:08:09.590 it was observed that patients who had

NOTE Confidence: 0.9749503

01:08:09.590 --> 01:08:11.475 solitary plasmacytomas either in the

NOTE Confidence: 0.9749503

01:08:11.475 --> 01:08:14.196 bone or in other tissues within the

NOTE Confidence: 0.9749503

01:08:14.196 --> 01:08:16.156 subsequent follow up after initial

NOTE Confidence: 0.9749503

01:08:16.156 --> 01:08:17.720 treatment for the plasmacytoma.

NOTE Confidence: 0.9749503

01:08:17.720 --> 01:08:19.920 Approximately 50% of patients did.

NOTE Confidence: 0.9749503

01:08:19.920 --> 01:08:22.979 Evolved to develop multiple myeloma in the

NOTE Confidence: 0.9749503

01:08:22.979 --> 01:08:26.056 subsequent three to five years of follow up.

NOTE Confidence: 0.9749503

01:08:26.060 --> 01:08:29.049 So I think the close follow-up is

NOTE Confidence: 0.9749503

01:08:29.049 --> 01:08:31.780 recommended with periodic imaging as to what?

NOTE Confidence: 0.9749503

01:08:31.780 --> 01:08:33.820 What are the factors that

NOTE Confidence: 0.9749503

01:08:33.820 --> 01:08:35.044 promote that progression?

NOTE Confidence: 0.9749503

01:08:35.050 --> 01:08:37.786 I think the Nordic Group had looked at

NOTE Confidence: 0.9749503

01:08:37.786 --> 01:08:40.776 some of the angiogenesis risk factors and

NOTE Confidence: 0.9749503

01:08:40.776 --> 01:08:44.049 they did not identify many risk factors,

NOTE Confidence: 0.9749503

01:08:44.050 --> 01:08:47.314 but there one of them was the badger,

NOTE Confidence: 0.9749503

01:08:47.320 --> 01:08:50.110 which is the endothelial blood vessel.

NOTE Confidence: 0.9749503

01:08:50.110 --> 01:08:51.182 Type of.

NOTE Confidence: 0.9749503

01:08:51.182 --> 01:08:53.326 Inflammatory or angiogenesis mediator,

NOTE Confidence: 0.9749503

01:08:53.330 --> 01:08:55.420 but it's not something that

NOTE Confidence: 0.9749503

01:08:55.420 --> 01:08:56.674 we routinely test,

NOTE Confidence: 0.9749503

01:08:56.680 --> 01:08:59.194 and there's no other easy ways

NOTE Confidence: 0.9749503

01:08:59.194 --> 01:09:00.870 of making that prediction,

NOTE Confidence: 0.9749503

01:09:00.870 --> 01:09:03.292 and so they the mainstay of monitoring

NOTE Confidence: 0.9749503

01:09:03.292 --> 01:09:05.423 would be just periodic surveillance

NOTE Confidence: 0.9749503

01:09:05.423 --> 01:09:07.988 initially at every three months,

NOTE Confidence: 0.9749503

01:09:07.990 --> 01:09:10.510 and subsequently at every six month

NOTE Confidence: 0.9749503

01:09:10.510 --> 01:09:12.600 interval with updated blood work,

NOTE Confidence: 0.9749503

01:09:12.600 --> 01:09:15.108 urine tests all of the usual

NOTE Confidence: 0.9749503

01:09:15.108 --> 01:09:16.362 myeloma lab tests,

NOTE Confidence: 0.9749503

01:09:16.370 --> 01:09:18.042 which includes certain protein

NOTE Confidence: 0.9749503

01:09:18.042 --> 01:09:20.132 electrophoresis like chains and urine,

NOTE Confidence: 0.9749503

01:09:20.140 --> 01:09:21.526 protein electrophoresis and

NOTE Confidence: 0.9749503

01:09:21.526 --> 01:09:23.836 and at least an annual.

NOTE Confidence: 0.9749503

01:09:23.840 --> 01:09:26.336 I think nowadays that will be with one

NOTE Confidence: 0.9749503

01:09:26.336 --> 01:09:28.979 of the advanced imaging modalities,

NOTE Confidence: 0.9749503

01:09:28.980 --> 01:09:32.930 like either a PET scan or low dose CT scan,

NOTE Confidence: 0.9749503

01:09:32.930 --> 01:09:34.900 or alternatively MRI of the

NOTE Confidence: 0.9749503

01:09:34.900 --> 01:09:36.476 body where it's available.

NOTE Confidence: 0.9610744

01:09:40.620 --> 01:09:41.556 Great, thank you.

NOTE Confidence: 0.9610744

01:09:41.556 --> 01:09:43.740 So those were all of our pre

NOTE Confidence: 0.9610744

01:09:43.809 --> 01:09:46.167 submitted questions and I don't see

NOTE Confidence: 0.9610744

01:09:46.167 --> 01:09:48.828 any additional ones in the QA or chat.

NOTE Confidence: 0.9610744

01:09:48.830 --> 01:09:51.224 So if anyone has any last minute

NOTE Confidence: 0.9610744

01:09:51.224 --> 01:09:52.930 questions please submit those now.

NOTE Confidence: 0.9610744

01:09:52.930 --> 01:09:55.567 If not but we can wipe things as down

NOTE Confidence: 0.9610744

01:09:55.567 --> 01:09:58.035 and thank you all for your attention

NOTE Confidence: 0.9610744

01:09:58.035 --> 01:10:00.799 and thank you to all the panelists.

NOTE Confidence: 0.98661715

01:10:02.960 --> 01:10:04.690 Thank you very much everybody.

NOTE Confidence: 0.98661715

01:10:04.690 --> 01:10:05.728 Great talks everyone.

NOTE Confidence: 0.98854965

01:10:09.150 --> 01:10:11.377 Thanks for joining. Bye.