WEBVTT

00:00:00.000 --> 00:00:01.786 Funding for Yale Cancer Answers

NOTE Confidence: 0.863593993333333

00:00:01.786 --> 00:00:03.932 is provided by Smilow Cancer

NOTE Confidence: 0.863593993333333

00:00:03.932 --> 00:00:05.704 Hospital and AstraZeneca.

NOTE Confidence: 0.939680565454545

00:00:07.990 --> 00:00:09.868 Welcome to Yale Cancer Answers with

NOTE Confidence: 0.939680565454545

00:00:09.868 --> 00:00:12.396 your host doctor Anees Chagpar.

NOTE Confidence: 0.939680565454545

00:00:12.396 --> 00:00:14.342 Yale Cancer Answers features the

NOTE Confidence: 0.939680565454545

00:00:14.342 --> 00:00:16.520 latest information on cancer care by

NOTE Confidence: 0.939680565454545

00:00:16.581 --> 00:00:18.013 welcoming oncologists and specialists

NOTE Confidence: 0.939680565454545

00:00:18.013 --> 00:00:20.504 who are on the forefront of the

NOTE Confidence: 0.939680565454545

00:00:20.504 --> 00:00:22.388 battle to fight cancer. This week

NOTE Confidence: 0.939680565454545

00:00:22.388 --> 00:00:24.233 it's a conversation about multiple

NOTE Confidence: 0.939680565454545

00:00:24.233 --> 00:00:25.873 myeloma and other hematologic

NOTE Confidence: 0.939680565454545

00:00:25.873 --> 00:00:28.218 conditions with Doctor Terri Parker.

NOTE Confidence: 0.939680565454545

00:00:28.220 --> 00:00:30.278 Dr Parker is an assistant professor

NOTE Confidence: 0.939680565454545

00:00:30.278 --> 00:00:31.997 of medicine in hematology at

NOTE Confidence: 0.939680565454545

00:00:31.997 --> 00:00:33.447 the Yale School of Medicine,

NOTE Confidence: 0.939680565454545

00:00:33.450 --> 00:00:36.110 where Doctor Chagpar is a

NOTE Confidence: 0.939680565454545

00:00:36.110 --> 00:00:38.238 professor of surgical oncology.

00:00:38.620 --> 00:00:39.943 Terri, maybe we can start off by you

NOTE Confidence: 0.980048640526316

00:00:39.943 --> 00:00:41.282 telling us a little bit about

NOTE Confidence: 0.980048640526316

00:00:41.282 --> 00:00:42.722 yourself and about what you do.

NOTE Confidence: 0.943237674545454

00:00:43.470 --> 00:00:45.990 My specialty focuses on plasma cell

NOTE Confidence: 0.943237674545454

00:00:45.990 --> 00:00:48.440 neoplasms or plasma cell disorders.

NOTE Confidence: 0.943237674545454

00:00:48.440 --> 00:00:50.722 The most common of which is multiple

NOTE Confidence: 0.943237674545454

00:00:50.722 --> 00:00:52.414 myeloma, which is considered to

NOTE Confidence: 0.943237674545454

00:00:52.414 --> 00:00:53.778 be a haematological malignancy.

NOTE Confidence: 0.971497342857143

00:00:54.090 --> 00:00:56.589 So let's back up a little bit.

NOTE Confidence: 0.971497342857143

00:00:56.590 --> 00:00:58.966 What exactly is a plasma cell?

NOTE Confidence: 0.937939754736842

00:00:59.210 --> 00:01:01.030 A plasma cell is a

NOTE Confidence: 0.937939754736842

00:01:01.030 --> 00:01:02.814 type of white blood cell that

NOTE Confidence: 0.937939754736842

00:01:02.814 --> 00:01:04.680 is found in the bone marrow.

NOTE Confidence: 0.937939754736842

00:01:04.680 --> 00:01:06.960 It's derived from a B lymphocyte,

NOTE Confidence: 0.937939754736842

00:01:06.960 --> 00:01:08.496 which is another type of white

NOTE Confidence: 0.937939754736842

00:01:08.500 --> 00:01:10.548 blood cell again found in the bone marrow.

NOTE Confidence: 0.98822729

00:01:11.080 --> 00:01:13.798 Tell us about multiple

NOTE Confidence: 0.98822729

00:01:13.798 --> 00:01:16.200 myeloma and what exactly it is.

NOTE Confidence: 0.98822729

00:01:16.200 --> 00:01:17.982 I mean when we think about

NOTE Confidence: 0.98822729

00:01:17.982 --> 00:01:19.600 cancers of white blood cells,

NOTE Confidence: 0.98822729

00:01:19.600 --> 00:01:22.400 oftentimes we're thinking about leukemias

NOTE Confidence: 0.98822729

00:01:22.400 --> 00:01:24.388 lymphomas, is multiple myeloma

NOTE Confidence: 0.98822729

00:01:24.388 --> 00:01:26.376 a type of that,

NOTE Confidence: 0.98822729

00:01:26.380 --> 00:01:28.708 is it different? Tell us more.

NOTE Confidence: 0.92726803

00:01:28.990 --> 00:01:30.745 As stated, a multiple

NOTE Confidence: 0.92726803

00:01:30.745 --> 00:01:33.048 myeloma is considered to be a

NOTE Confidence: 0.92726803

00:01:33.048 --> 00:01:34.980 hematological malignancy and so

NOTE Confidence: 0.92726803

00:01:34.980 --> 00:01:36.912 that term encompasses leukemias,

NOTE Confidence: 0.92726803

00:01:36.920 --> 00:01:39.750 lymphomas, and plasma cell neoplasms,

NOTE Confidence: 0.92726803

00:01:39.750 --> 00:01:42.198 of which multiple myeloma is one.

NOTE Confidence: 0.92726803

00:01:42.200 --> 00:01:44.165 So in multiple myeloma the

NOTE Confidence: 0.92726803

00:01:44.165 --> 00:01:46.130 abnormal cell is a plasma cell

NOTE Confidence: 0.92726803

00:01:46.130 --> 00:01:48.944 and these plasma cells proliferate or

NOTE Confidence: 0.92726803

00:01:48.944 --> 00:01:52.178 increase in number in the bone marrow.

NOTE Confidence: 0.92726803

00:01:52.180 --> 00:01:54.286 It's really not known what causes

NOTE Confidence: 0.92726803

00:01:54.286 --> 00:01:56.760 the plasma cells to proliferate in

NOTE Confidence: 0.92726803

00:01:56.760 --> 00:01:58.384 the majority of individuals,

NOTE Confidence: 0.92726803

00:01:58.384 --> 00:02:00.414 and it's this proliferation that

NOTE Confidence: 0.92726803

00:02:00.414 --> 00:02:02.660 is defined as multiple myeloma.

00:02:07.936 --> 00:02:10.786 In general, blood cancers

NOTE Confidence: 0.979032818333333

00:02:10.786 --> 00:02:13.159 are pretty rare, right?

NOTE Confidence: 0.98023083

00:02:13.170 --> 00:02:15.046 If you look at multiple myeloma,

NOTE Confidence: 0.98023083

00:02:15.050 --> 00:02:16.830 it's currently the 14th most

NOTE Confidence: 0.98023083

00:02:16.830 --> 00:02:19.082 common cancer in the United States

NOTE Confidence: 0.98023083

00:02:19.082 --> 00:02:21.067 and it represents roughly 1.8%

NOTE Confidence: 0.98023083

00:02:21.067 --> 00:02:23.209 of all new cancers diagnosed

NOTE Confidence: 0.98023083

00:02:23.210 --> 00:02:24.694 so not as common as some of

NOTE Confidence: 0.98023083

00:02:24.694 --> 00:02:25.960 our solid tumors that we see.

NOTE Confidence: 0.980595613

00:02:26.310 --> 00:02:28.728 And where does it rank relative

NOTE Confidence: 0.980595613

00:02:28.728 --> 00:02:30.703 to leukemia and lymphoma?

NOTE Confidence: 0.980595613

00:02:30.703 --> 00:02:33.678 There's some leukemias

NOTE Confidence: 0.973851907777778

00:02:33.690 --> 00:02:36.003 that are more common and some that are rare,

NOTE Confidence: 0.973851907777778

00:02:36.010 --> 00:02:38.236 so probably somewhere in

NOTE Confidence: 0.973851907777778

00:02:38.236 --> 00:02:41.057 the middle, not to be too specific.

NOTE Confidence: 0.983916058888889

00:02:41.440 --> 00:02:44.715 And who gets

NOTE Confidence: 0.983916058888889

00:02:44.715 --> 00:02:47.335 these blood cell cancers?

NOTE Confidence: 0.983916058888889

00:02:47.340 --> 00:02:48.522 These hematologic malignancies.

NOTE Confidence: 0.983916058888889

00:02:48.522 --> 00:02:51.280 Are there certain risk factors that put

NOTE Confidence: 0.983916058888889

00:02:51.335 --> 00:02:53.249 people at risk for developing them?

NOTE Confidence: 0.969628715555556

00:02:53.890 --> 00:02:56.752 As I stated previously

NOTE Confidence: 0.969628715555556

00:02:56.752 --> 00:02:58.183 for multiple myeloma,

NOTE Confidence: 0.969628715555556

00:02:58.190 --> 00:03:00.286 for most people we don't really know

NOTE Confidence: 0.969628715555556

00:03:00.286 --> 00:03:01.726 why they developed the disease.

NOTE Confidence: 0.969628715555556

00:03:01.730 --> 00:03:04.145 However, there are some factors that may

NOTE Confidence: 0.969628715555556

00:03:04.145 --> 00:03:06.730 increase the risk of developing myeloma.

NOTE Confidence: 0.969628715555556

00:03:06.730 --> 00:03:09.750 One is age, so the majority of people

NOTE Confidence: 0.969628715555556

00:03:09.750 --> 00:03:12.854 are over the age of 50 at diagnosis.

NOTE Confidence: 0.969628715555556

00:03:12.860 --> 00:03:15.009 With the current median age of diagnosis

NOTE Confidence: 0.969628715555556

00:03:15.009 --> 00:03:17.539 here in the United States being 69,

NOTE Confidence: 0.969628715555556

00:03:17.539 --> 00:03:20.682 another risk factor is a precursor condition

NOTE Confidence: 0.969628715555556

00:03:20.682 --> 00:03:24.417 known as Monoclonal gammopathy of undetermined significance

NOTE Confidence: 0.969628715555556

00:03:24.420 --> 00:03:26.356 also known as MGUS.

00:03:29.740 --> 00:03:31.990 Tell us more about that.

NOTE Confidence: 0.9656227648

00:03:32.020 --> 00:03:35.296 MGUS is considered to be a precursor condition

NOTE Confidence: 0.9656227648

00:03:35.296 --> 00:03:38.252 and the individuals are asymptomatic and

NOTE Confidence: 0.9656227648

00:03:38.252 --> 00:03:41.198 it's usually discovered when blood

NOTE Confidence: 0.9656227648

00:03:41.198 --> 00:03:44.067 work is done for another complaint,

NOTE Confidence: 0.9656227648

00:03:44.070 --> 00:03:46.926 sometimes it can be that a primary care

NOTE Confidence: 0.9656227648

00:03:46.926 --> 00:03:49.058 physician notices that there's an increase

NOTE Confidence: 0.9656227648

00:03:49.058 --> 00:03:51.780 in protein in a simple serum chemistry.

NOTE Confidence: 0.9656227648

00:03:51.780 --> 00:03:53.694 So that's a blood test that's

NOTE Confidence: 0.9656227648

00:03:53.694 --> 00:03:54.970 done for another reason.

NOTE Confidence: 0.9656227648

00:03:54.970 --> 00:03:57.110 Sometimes this laboratory work is

NOTE Confidence: 0.9656227648

00:03:57.110 --> 00:03:59.851 done for evaluation of other problems

NOTE Confidence: 0.9656227648

00:03:59.851 --> 00:04:02.496 such as osteoporosis or neuropathies

00:04:03.430 --> 00:04:05.600 and then they get referred to a

NOTE Confidence: 0.9656227648

00:04:05.664 --> 00:04:07.839 hematologist and have further evaluation

NOTE Confidence: 0.9656227648

00:04:07.839 --> 00:04:10.440 that then reveals this precursor state.

NOTE Confidence: 0.97804469

00:04:11.100 --> 00:04:15.249 Those are pretty

NOTE Confidence: 0.97804469

00:04:15.249 --> 00:04:17.720 general risk factors in terms of age

NOTE Confidence: 0.97804469

00:04:17.720 --> 00:04:20.410 and MGUS for multiple myeloma.

NOTE Confidence: 0.97804469

00:04:20.410 --> 00:04:22.558 Are there risk factors for lymphoma

NOTE Confidence: 0.97804469

00:04:22.558 --> 00:04:24.700 and leukemia as well?

00:04:29.040 --> 00:04:31.203 In general, age again plays a

NOTE Confidence: 0.862389704

00:04:31.203 --> 00:04:34.215 factor as we do tend to see certain

NOTE Confidence: 0.862389704

00:04:34.215 --> 00:04:35.827 leukemias in older individuals.

NOTE Confidence: 0.862389704

00:04:35.830 --> 00:04:38.150 It again depends on the type of leukemia,

NOTE Confidence: 0.862389704

00:04:38.150 --> 00:04:39.150 as there are different types.

NOTE Confidence: 0.862389704

00:04:39.150 --> 00:04:42.180 Acute and chronic lymphoid versus

NOTE Confidence: 0.862389704

00:04:42.180 --> 00:04:45.658 myeloid. And other potential risks

NOTE Confidence: 0.862389704

00:04:45.658 --> 00:04:48.526 can include environmental exposures,

NOTE Confidence: 0.862389704

00:04:48.530 --> 00:04:50.420 so there have been studies looking

NOTE Confidence: 0.862389704

00:04:50.420 --> 00:04:52.570 at the link between radiation in

NOTE Confidence: 0.862389704

00:04:52.570 --> 00:04:54.640 addition to certain chemical exposures

NOTE Confidence: 0.862389704

00:04:54.640 --> 00:04:56.879 such as pesticides or Agent Orange.

NOTE Confidence: 0.964436759

00:04:58.260 --> 00:05:01.760 And so those increase your risk of

NOTE Confidence: 0.964436759

00:05:01.760 --> 00:05:04.028 leukemias and lymphomas, but not

NOTE Confidence: 0.964436759

00:05:04.028 --> 00:05:05.750 of multiple myeloma. Is that right?

NOTE Confidence: 0.932299707142857

00:05:06.220 --> 00:05:07.627 Multiple Myeloma as well,

NOTE Confidence: 0.932299707142857

00:05:07.630 --> 00:05:09.460 there have been studies

NOTE Confidence: 0.932299707142857

00:05:09.460 --> 00:05:11.290 specifically looking at Agent Orange

NOTE Confidence: 0.932299707142857

00:05:11.354 --> 00:05:13.388 and pesticides as well as radiation

NOTE Confidence: 0.981121681764706

00:05:14.010 --> 00:05:16.354 so you know pesticides is something that I

NOTE Confidence: 0.981121681764706

00:05:16.354 --> 00:05:18.999 think a lot of people kind of worry about.

NOTE Confidence: 0.981121681764706

00:05:19.000 --> 00:05:21.502 And you know, as we're heading into the fall,

NOTE Confidence: 0.981121681764706

00:05:21.510 --> 00:05:23.412 people are still using

NOTE Confidence: 0.981121681764706

00:05:23.412 --> 00:05:25.420 pesticides as they're trying to

NOTE Confidence: 0.981121681764706

00:05:25.420 --> 00:05:27.240 tend their lawn and do their gardening,

NOTE Confidence: 0.981121681764706

00:05:27.240 --> 00:05:29.048 get everything ready

NOTE Confidence: 0.981121681764706

00:05:29.048 --> 00:05:30.418 for the winter.

NOTE Confidence: 0.981121681764706

00:05:30.418 --> 00:05:33.172 Should people really be concerned about

NOTE Confidence: 0.981121681764706

00:05:33.172 --> 00:05:35.481 pesticides or are there particular

NOTE Confidence: 0.981121681764706

00:05:35.481 --> 00:05:38.109 pesticides that they should watch out

NOTE Confidence: 0.981121681764706

00:05:38.109 --> 00:05:40.730 for and others that might be safer?

NOTE Confidence: 0.926371455789474

00:05:40.740 --> 00:05:42.756 That's a good question and I don't

NOTE Confidence: 0.926371455789474

00:05:42.756 --> 00:05:44.414 have a specific answer for you

NOTE Confidence: 0.926371455789474

00:05:44.414 --> 00:05:46.644 and a lot of these are

NOTE Confidence: 0.926371455789474

00:05:46.644 --> 00:05:49.304 looked at and some of the common

NOTE Confidence: 0.926371455789474

00:05:49.304 --> 00:05:51.124 pesticides that people may use

NOTE Confidence: 0.926371455789474

00:05:51.124 --> 00:05:53.633 may have warnings on them most of

NOTE Confidence: 0.926371455789474

00:05:53.633 --> 00:05:55.595 the time people are usually safe

NOTE Confidence: 0.926371455789474

00:05:55.595 --> 00:05:57.647 because they're using the regular

NOTE Confidence: 0.926371455789474

00:05:57.647 --> 00:05:59.307 household pesticides or chemicals

NOTE Confidence: 0.926371455789474

00:05:59.307 --> 00:06:01.764 if you will and ventilated

NOTE Confidence: 0.926371455789474

00:06:01.764 --> 00:06:03.388 outdoor space and really

NOTE Confidence: 0.926371455789474

00:06:03.388 --> 00:06:04.860 have minimal exposure.

NOTE Confidence: 0.974414628666666

00:06:05.400 --> 00:06:07.112 I think that that's

NOTE Confidence: 0.974414628666666

00:06:07.112 --> 00:06:09.008 kind of good information to get across.

NOTE Confidence: 0.974414628666666

00:06:09.010 --> 00:06:10.134 Just because

NOTE Confidence: 0.974414628666666

00:06:10.134 --> 00:06:11.539 people can sometimes worry about

NOTE Confidence: 0.974414628666666

00:06:11.539 --> 00:06:13.117 these things, but

NOTE Confidence: 0.974414628666666

00:06:13.117 --> 00:06:15.698 it may be that it's really not as

NOTE Confidence: 0.974414628666666

00:06:15.698 --> 00:06:17.744 toxic as some people may think,

NOTE Confidence: 0.974414628666666

00:06:17.750 --> 00:06:20.711 unless you're in contact

NOTE Confidence: 0.974414628666666

00:06:20.711 --> 00:06:23.689 with them in large quantities.

NOTE Confidence: 0.974414628666666

00:06:23.690 --> 00:06:25.958 So now that we've talked

NOTE Confidence: 0.974414628666666

00:06:25.958 --> 00:06:27.470 about the risk factors,

NOTE Confidence: 0.974414628666666

00:06:27.470 --> 00:06:30.695 how do people present with

NOTE Confidence: 0.974414628666666

00:06:30.695 --> 00:06:32.630 these hematologic malignancies?

NOTE Confidence: 0.974414628666666

00:06:32.630 --> 00:06:36.620 For a solid tumor,

NOTE Confidence: 0.974414628666666

00:06:36.620 --> 00:06:39.300 tumors we often can find a lump,

NOTE Confidence: 0.974414628666666

00:06:39.300 --> 00:06:42.045 or we'll have some bleeding

NOTE Confidence: 0.974414628666666

00:06:42.045 --> 00:06:44.790 or will have some pain.

NOTE Confidence: 0.974414628666666

00:06:44.790 --> 00:06:46.366 Blood cells don't generally

NOTE Confidence: 0.974414628666666

00:06:46.366 --> 00:06:48.350 cause those things, do they?

NOTE Confidence: 0.952656113636364

00:06:51.190 --> 00:06:53.255 If we walk

NOTE Confidence: 0.952656113636364

00:06:53.255 --> 00:06:55.090 through each thing individually,

NOTE Confidence: 0.952656113636364

00:06:55.090 --> 00:06:57.520 for patients who have leukemia

NOTE Confidence: 0.952656113636364

00:06:57.520 --> 00:06:59.970 a lot of times they will present

NOTE Confidence: 0.952656113636364

00:06:59.970 --> 00:07:01.560 with abnormal blood counts.

NOTE Confidence: 0.952656113636364

00:07:01.560 --> 00:07:03.246 By that I mean an abnormal

NOTE Confidence: 0.952656113636364

00:07:03.246 --> 00:07:04.370 white blood cell count,

NOTE Confidence: 0.952656113636364

00:07:04.370 --> 00:07:07.406 hemoglobin or red cells or platelets,

NOTE Confidence: 0.952656113636364

00:07:07.410 --> 00:07:09.853 which are the cell that helps prevent

NOTE Confidence: 0.952656113636364

00:07:09.853 --> 00:07:11.918 you from bleeding or blood clots.

NOTE Confidence: 0.952656113636364

00:07:11.920 --> 00:07:15.217 Sometimes an individual will be diagnosed

NOTE Confidence: 0.952656113636364

00:07:15.220 --> 00:07:17.334 when they have a blood count done

NOTE Confidence: 0.952656113636364

00:07:17.334 --> 00:07:19.391 for another reason and it's picked

NOTE Confidence: 0.952656113636364

00:07:19.391 --> 00:07:21.206 up because there's an abnormality.

NOTE Confidence: 0.952656113636364

00:07:21.210 --> 00:07:23.575 Sometimes people present because these

12

NOTE Confidence: 0.952656113636364

00:07:23.575 --> 00:07:25.940 abnormalities lead to other symptoms.

NOTE Confidence: 0.952656113636364

00:07:25.940 --> 00:07:27.215 For example, if there's an

NOTE Confidence: 0.952656113636364

00:07:27.215 --> 00:07:28.780 alteration in a white blood cell

NOTE Confidence: 0.952656113636364

00:07:28.780 --> 00:07:30.780 count is specifically a lower

NOTE Confidence: 0.952656113636364

00:07:30.780 --> 00:07:32.380 white blood cell count,

NOTE Confidence: 0.952656113636364

00:07:32.380 --> 00:07:35.542 someone may develop more frequent or

NOTE Confidence: 0.952656113636364

00:07:35.542 --> 00:07:37.700 recurrent infections if the red cells or

NOTE Confidence: 0.952656113636364

00:07:37.700 --> 00:07:38.861 hemoglobin is low.

NOTE Confidence: 0.952656113636364

00:07:38.861 --> 00:07:40.796 That's also known as anemia,

NOTE Confidence: 0.952656113636364

00:07:40.800 --> 00:07:42.735 and patients can

NOTE Confidence: 0.952656113636364

00:07:42.735 --> 00:07:44.670 become more tired or fatigued,

NOTE Confidence: 0.952656113636364

00:07:44.670 --> 00:07:45.860 and if their platelet count

NOTE Confidence: 0.952656113636364

00:07:45.860 --> 00:07:47.870 is reduced they can present

NOTE Confidence: 0.952656113636364

00:07:47.870 --> 00:07:49.880 with bleeding or easy bruising,

NOTE Confidence: 0.952656113636364

00:07:49.880 --> 00:07:51.865 so sometimes these people present

NOTE Confidence: 0.952656113636364

00:07:51.865 --> 00:07:54.262 because they have other symptoms and

NOTE Confidence: 0.952656113636364

00:07:54.262 --> 00:07:56.320 then it's revealed that these symptoms

NOTE Confidence: 0.952656113636364

00:07:56.320 --> 00:07:58.499 are because of a low blood count.

NOTE Confidence: 0.952656113636364

00:07:58.500 --> 00:08:00.650 For individuals who have lymphomas,

NOTE Confidence: 0.952656113636364

00:08:00.650 --> 00:08:02.702 sometimes they will present with a

NOTE Confidence: 0.952656113636364

00:08:02.702 --> 00:08:05.071 large lymph node and so in that case

NOTE Confidence: 0.952656113636364

00:08:05.071 --> 00:08:07.559 they may have a lump or bump if you will

NOTE Confidence: 0.952656113636364

00:08:07.560 --> 00:08:11.340 that causes them to present to medical

NOTE Confidence: 0.952656113636364

00:08:11.340 --> 00:08:13.680 attention and then for multiple myeloma,

NOTE Confidence: 0.952656113636364

00:08:13.680 --> 00:08:16.228 which is what I specifically focus in,

NOTE Confidence: 0.952656113636364

00:08:16.230 --> 00:08:18.300 sometimes people will not have any

NOTE Confidence: 0.952656113636364

00:08:18.300 --> 00:08:20.077 symptoms and again it's picked

NOTE Confidence: 0.952656113636364

00:08:20.077 --> 00:08:22.075 up because blood work is done

NOTE Confidence: 0.952656113636364

00:08:22.075 --> 00:08:23.074 for another reason,

NOTE Confidence: 0.952656113636364

00:08:23.080 --> 00:08:26.144 like an elevated total protein on a serum

NOTE Confidence: 0.952656113636364

00:08:26.144 --> 00:08:28.585 chemistry which is a type of blood test.

NOTE Confidence: 0.952656113636364

00:08:28.590 --> 00:08:30.126 Other symptoms that individuals

NOTE Confidence: 0.952656113636364

00:08:30.126 --> 00:08:32.430 could have could again be anemia.

NOTE Confidence: 0.952656113636364

00:08:32.430 --> 00:08:34.453 If the plasma cells increase in the

NOTE Confidence: 0.952656113636364

00:08:34.453 --> 00:08:36.706 bone marrow to the point where they

NOTE Confidence: 0.952656113636364

00:08:36.706 --> 00:08:38.686 start crowding out the normal cells,

NOTE Confidence: 0.952656113636364

00:08:38.690 --> 00:08:40.706 plasma cells also produce high amounts

NOTE Confidence: 0.952656113636364

00:08:40.706 --> 00:08:43.249 of protein that can be seen in the

NOTE Confidence: 0.952656113636364

00:08:43.249 --> 00:08:44.953 blood that are cleared through the

NOTE Confidence: 0.952656113636364

00:08:45.013 --> 00:08:46.993 kidneys and could lead to renal

NOTE Confidence: 0.952656113636364

00:08:46.993 --> 00:08:48.721 dysfunction or failure in severe

NOTE Confidence: 0.952656113636364

00:08:48.721 --> 00:08:51.528 cases if it has not been recognized,

NOTE Confidence: 0.952656113636364

00:08:51.530 --> 00:08:54.306 and plasma cells also accumulate in the bone,

NOTE Confidence: 0.952656113636364

00:08:54.310 --> 00:08:56.270 that can lead to weakness of the

NOTE Confidence: 0.952656113636364

00:08:56.270 --> 00:08:58.249 bone and hence pain or fractures.

NOTE Confidence: 0.983309459230769

00:08:59.670 --> 00:09:02.530 And so it sounds like a lot of these are

NOTE Confidence: 0.983309459230769

00:09:02.605 --> 00:09:05.160 really picked up on basic blood tests

NOTE Confidence: 0.983309459230769

00:09:05.160 --> 00:09:08.259 that you have when you go to your doctor.

NOTE Confidence: 0.983309459230769

00:09:08.260 --> 00:09:10.570 So how frequently should you be

NOTE Confidence: 0.983309459230769

00:09:10.570 --> 00:09:12.510 having routine blood tests done?

NOTE Confidence: 0.983309459230769

00:09:12.510 --> 00:09:14.478 Especially if these things don't generally

NOTE Confidence: 0.983309459230769

00:09:14.478 --> 00:09:17.100 present with a lot of symptoms?

NOTE Confidence: 0.981069316666667

00:09:17.530 --> 00:09:20.422 There isn't currently

NOTE Confidence: 0.981069316666667

00:09:20.422 --> 00:09:22.350 screening that's recommended

NOTE Confidence: 0.981069316666667

00:09:22.429 --> 00:09:24.729 for multiple myeloma or MGUS

NOTE Confidence: 0.981069316666667

00:09:24.730 --> 00:09:27.090 which is the precursor condition.

NOTE Confidence: 0.981069316666667

00:09:27.090 --> 00:09:29.710 So typically we tell patients

NOTE Confidence: 0.981069316666667

00:09:29.710 --> 00:09:31.460 to follow the guidance from

NOTE Confidence: 0.981069316666667

00:09:31.460 --> 00:09:32.860 their primary care physician,

NOTE Confidence: 0.981069316666667

00:09:32.860 --> 00:09:35.520 meaning their blood work really depends

NOTE Confidence: 0.981069316666667

00:09:35.520 --> 00:09:37.922 on other medical problems.

NOTE Confidence: 0.981069316666667

00:09:37.922 --> 00:09:39.266 For example, if someone

NOTE Confidence: 0.981069316666667

00:09:39.266 --> 00:09:40.610 has a heart condition,

NOTE Confidence: 0.981069316666667

00:09:40.610 --> 00:09:43.250 diabetes or another medical issue,

NOTE Confidence: 0.981069316666667

00:09:43.250 --> 00:09:45.344 they're probably going to have blood

NOTE Confidence: 0.981069316666667

00:09:45.344 --> 00:09:47.153 work done more frequently because

NOTE Confidence: 0.981069316666667

00:09:47.153 --> 00:09:49.247 of monitoring of that condition and

NOTE Confidence: 0.981069316666667

00:09:49.247 --> 00:09:51.260 the medications that are needed.

00:09:54.171 --> 00:09:56.577 When you talk about these

NOTE Confidence: 0.95826231

00:09:56.577 --> 00:09:59.010 conditions being found in older patients,

00:10:00.183 --> 00:10:02.920 who are also the ones more likely

NOTE Confidence: 0.95826231

00:10:02.995 --> 00:10:05.300 to have other comorbidities that

NOTE Confidence: 0.95826231

00:10:05.300 --> 00:10:07.605 will require routine blood tests,

NOTE Confidence: 0.95826231

00:10:07.610 --> 00:10:10.562 I wonder how many people who are younger

NOTE Confidence: 0.95826231

00:10:10.562 --> 00:10:13.531 might be walking around completely

NOTE Confidence: 0.95826231

00:10:13.531 --> 00:10:16.443 asymptomatic but actually harboring

NOTE Confidence: 0.95826231

00:10:16.443 --> 00:10:19.661 one of these hematologic malignancies

NOTE Confidence: 0.95826231

00:10:19.661 --> 00:10:21.698 that have never been picked up simply

NOTE Confidence: 0.95826231

00:10:21.698 --> 00:10:23.348 because they've never had a blood test.

NOTE Confidence: 0.95826231

00:10:23.350 --> 00:10:26.213 Is that possible or do these things

NOTE Confidence: 0.95826231

00:10:26.213 --> 00:10:28.291 actually then progress to the

NOTE Confidence: 0.95826231

00:10:28.291 --> 00:10:30.330 point of being symptomatic?

NOTE Confidence: 0.984542092857143

00:10:30.360 --> 00:10:32.586 Again when you talk about

NOTE Confidence: 0.984542092857143

00:10:32.586 --> 00:10:33.463 hematologic malignancies

NOTE Confidence: 0.984542092857143

00:10:33.463 --> 00:10:36.984 that's a very broad topic and so

NOTE Confidence: 0.984542092857143

00:10:36.984 --> 00:10:40.178 everyone is very individualized.

NOTE Confidence: 0.984542092857143

00:10:40.178 --> 00:10:42.684 And so if we look at multiple

NOTE Confidence: 0.984542092857143

00:10:42.684 --> 00:10:44.380 myeloma for individuals with

NOTE Confidence: 0.984542092857143

00:10:44.380 --> 00:10:46.865 the precursor condition MGUS,

NOTE Confidence: 0.984542092857143

00:10:46.870 --> 00:10:49.294 they can be asymptomatic for years

NOTE Confidence: 0.984542092857143

00:10:49.294 --> 00:10:52.070 and for many patients

NOTE Confidence: 0.984542092857143

00:10:52.070 --> 00:10:54.525 it never progresses.

NOTE Confidence: 0.984542092857143

00:10:54.525 --> 00:10:56.295 For individuals who have a low risk

NOTE Confidence: 0.984542092857143

00:10:56.300 --> 00:10:57.876 MGUS we

18

00:10:59.850 --> 00:11:01.824 tell them that the risk of

NOTE Confidence: 0.984542092857143

00:11:01.824 --> 00:11:03.428 progression is roughly 1% per year.

NOTE Confidence: 0.984542092857143

00:11:03.428 --> 00:11:05.521 So there's a large majority of

NOTE Confidence: 0.984542092857143

00:11:05.521 --> 00:11:07.290 people who will never progress.

NOTE Confidence: 0.984542092857143

00:11:07.290 --> 00:11:09.305 If someone has multiple myeloma

NOTE Confidence: 0.984542092857143

00:11:09.305 --> 00:11:10.917 and it's left untreated,

NOTE Confidence: 0.984542092857143

00:11:10.920 --> 00:11:13.104 it will progress to the point where

NOTE Confidence: 0.984542092857143

00:11:13.104 --> 00:11:15.068 they may develop syptoms,

NOTE Confidence: 0.984542092857143

00:11:15.070 --> 00:11:17.455 what was discussed being

NOTE Confidence: 0.984542092857143

00:11:17.455 --> 00:11:19.840 anemia leading to fatigue, potential

NOTE Confidence: 0.984542092857143

00:11:19.840 --> 00:11:22.650 kidney damage, or bone damage,

NOTE Confidence: 0.984542092857143

00:11:22.650 --> 00:11:24.792 so those patients will progress and

NOTE Confidence: 0.984542092857143

00:11:24.792 --> 00:11:26.630 become symptomatic at some point,

NOTE Confidence: 0.984542092857143

00:11:26.630 --> 00:11:28.195 it's difficult to predict that

NOTE Confidence: 0.984542092857143

00:11:28.195 --> 00:11:29.134 rate of progression.

NOTE Confidence: 0.98137578

00:11:29.860 --> 00:11:32.180 And what about

NOTE Confidence: 0.98137578

00:11:32.180 --> 00:11:34.916 for lymphomas and leukemias?

NOTE Confidence: 0.98137578

00:11:34.920 --> 00:11:37.610 Are those also ones that

NOTE Confidence: 0.98137578

00:11:37.610 --> 00:11:39.762 will progress to symptoms?

NOTE Confidence: 0.98137578

00:11:39.770 --> 00:11:41.737 Or is it possible for them to

NOTE Confidence: 0.98137578

00:11:41.737 --> 00:11:43.388 be pretty asymptomatic until

NOTE Confidence: 0.98137578

00:11:43.388 --> 00:11:46.124 they actually end up having a

NOTE Confidence: 0.98137578

00:11:46.124 --> 00:11:48.408 test that that diagnosis it?

NOTE Confidence: 0.98137578

00:11:48.410 --> 00:11:50.868 Yeah, so for your acute leukemias,

NOTE Confidence: 0.98827593625

00:11:50.880 --> 00:11:52.770 and even the majority of

NOTE Confidence: 0.98827593625

00:11:52.770 --> 00:11:53.904 your chronic leukemias,

NOTE Confidence: 0.98827593625

00:11:53.910 --> 00:11:56.180 they will often progress again,

NOTE Confidence: 0.98827593625

00:11:56.180 --> 00:11:59.026 varying rates of progression to the point

NOTE Confidence: 0.98827593625

00:11:59.026 --> 00:12:00.209 where people will become symptomatic.

NOTE Confidence: 0.98827593625

00:12:00.209 --> 00:12:02.663 Similarly, if someone had an aggressive

NOTE Confidence: 0.98827593625

00:12:02.663 --> 00:12:05.198 lymphoma or a high grade lymphoma,

NOTE Confidence: 0.98827593625

20

00:12:05.200 --> 00:12:07.464 they would progress to the point of symptoms.

NOTE Confidence: 0.98827593625

00:12:07.470 --> 00:12:09.655 It is possible for individuals

NOTE Confidence: 0.98827593625

00:12:09.655 --> 00:12:12.270 who have a indolent or a slowly

NOTE Confidence: 0.98827593625

00:12:12.270 --> 00:12:13.570 progressing lymphoma that they

NOTE Confidence: 0.98827593625

00:12:13.570 --> 00:12:15.796 may have had it for several years

NOTE Confidence: 0.98827593625

00:12:15.796 --> 00:12:17.311 before the point of progression.

NOTE Confidence: 0.9770635812

00:12:17.970 --> 00:12:20.427 The other question that I had was

NOTE Confidence: 0.9770635812

00:12:20.427 --> 00:12:23.154 you talk about one of the

NOTE Confidence: 0.9770635812

00:12:23.154 --> 00:12:25.249 things that's often a trigger to

NOTE Confidence: 0.9770635812

00:12:25.250 --> 00:12:28.635 finding diagnosis of these

NOTE Confidence: 0.9770635812

00:12:28.635 --> 00:12:31.343 conditions as being anemia.

NOTE Confidence: 0.9770635812

00:12:31.350 --> 00:12:33.688 And for example, in multiple myeloma,

NOTE Confidence: 0.9770635812

00:12:33.690 --> 00:12:35.030 where the plasma cells kind

NOTE Confidence: 0.9770635812

00:12:35.030 --> 00:12:36.370 of crowd out other cells,

NOTE Confidence: 0.9770635812

00:12:36.370 --> 00:12:40.699 and so the red blood cell count goes down.

NOTE Confidence: 0.9770635812

00:12:40.700 --> 00:12:41.604 Two questions,

NOTE Confidence: 0.9770635812

00:12:41.604 --> 00:12:44.110 first question is oftentimes anemia,

NOTE Confidence: 0.9770635812

00:12:44.110 --> 00:12:46.410 especially in older people,

NOTE Confidence: 0.9770635812

00:12:46.410 --> 00:12:50.096 can be associated with other things, right?

NOTE Confidence: 0.9770635812

00:12:50.096 --> 00:12:52.480 GI bleeds,

NOTE Confidence: 0.9770635812

00:12:52.480 --> 00:12:54.800 losing blood from other sources,

NOTE Confidence: 0.9770635812

00:12:54.800 --> 00:12:56.162 iron deficiency anemia.

NOTE Confidence: 0.9770635812

00:12:56.162 --> 00:12:59.340 How do you really tell that this

NOTE Confidence: 0.9770635812

00:12:59.426 --> 00:13:02.091 is from something like multiple

NOTE Confidence: 0.9770635812

00:13:02.091 --> 00:13:04.330 myeloma versus other things?

NOTE Confidence: 0.98020795

00:13:05.200 --> 00:13:07.570 Yeah, that's a really good question,

NOTE Confidence: 0.98020795

00:13:07.570 --> 00:13:08.890 and as you mentioned,

NOTE Confidence: 0.98020795

00:13:08.890 --> 00:13:10.870 people who are older and even

NOTE Confidence: 0.98020795

00:13:10.938 --> 00:13:12.518 younger individuals can have

NOTE Confidence: 0.98020795

00:13:12.518 --> 00:13:14.888 anemia for a variety of reasons.

NOTE Confidence: 0.98020795

00:13:14.890 --> 00:13:17.137 So typically we will work up and

NOTE Confidence: 0.98020795

00:13:17.137 --> 00:13:19.529 do a basic anemia evaluation,

NOTE Confidence: 0.98020795

00:13:19.530 --> 00:13:21.605 which includes looking at

NOTE Confidence: 0.98020795

00:13:21.605 --> 00:13:23.265 things like iron deficiency,

NOTE Confidence: 0.98020795

00:13:23.270 --> 00:13:24.842 other nutritional deficiencies,

NOTE Confidence: 0.98020795

00:13:24.842 --> 00:13:27.450 vitamin B12, and folic acid to

NOTE Confidence: 0.98020795

00:13:27.450 --> 00:13:30.335 make sure we exclude kind of

NOTE Confidence: 0.98020795

00:13:30.335 --> 00:13:32.600 the most common and treatable

NOTE Confidence: 0.98020795

00:13:32.600 --> 00:13:35.150 reasons for anemia first and then

NOTE Confidence: 0.98020795

00:13:35.150 --> 00:13:37.320 when we really don't have a source,

NOTE Confidence: 0.98020795

00:13:37.320 --> 00:13:39.360 then we kind of go on to kind of that

NOTE Confidence: 0.98020795

00:13:39.421 --> 00:13:41.923 next level of evaluation that does

NOTE Confidence: 0.98020795

00:13:41.923 --> 00:13:43.174 include hematological disorders.

NOTE Confidence: 0.984581218461538

00:13:43.970 --> 00:13:45.811 Well, we're gonna need to take a

NOTE Confidence: 0.984581218461538

00:13:45.811 --> 00:13:47.588 short break for a medical minute,

NOTE Confidence: 0.984581218461538

00:13:47.590 --> 00:13:49.767 but when we get back we'll learn

NOTE Confidence: 0.984581218461538

00:13:49.767 --> 00:13:52.471 more about how to diagnose and treat

NOTE Confidence: 0.984581218461538

00:13:52.471 --> 00:13:54.167 these hematologic conditions with

NOTE Confidence: 0.984581218461538

00:13:54.167 --> 00:13:56.880 my guest doctor Terri Parker.

NOTE Confidence: 0.929280055714286

00:13:56.890 --> 00:13:58.460 Funding for Yale Cancer Answers comes

NOTE Confidence: 0.929280055714286

00:13:58.460 --> 00:14:00.650 from AstraZeneca, dedicated to

NOTE Confidence: 0.929280055714286

00:14:00.650 --> 00:14:02.234 advancing options and providing

NOTE Confidence: 0.929280055714286

00:14:02.234 --> 00:14:04.670 hope for people living with cancer.

NOTE Confidence: 0.929280055714286

00:14:04.670 --> 00:14:05.828 More information at

NOTE Confidence: 0.8795823

00:14:07.960 --> 00:14:08.550 astrazeneca-us.com.

NOTE Confidence: 0.989252264444444

00:14:10.630 --> 00:14:12.250 There are many obstacles to

NOTE Confidence: 0.989252264444444

00:14:12.250 --> 00:14:13.546 face when quitting smoking.

NOTE Confidence: 0.989252264444444

00:14:13.550 --> 00:14:15.386 As smoking involves the potent drug

NOTE Confidence: 0.989252264444444

00:14:15.390 --> 00:14:17.655 Nicotine. Quitting smoking is a

NOTE Confidence: 0.989252264444444

00:14:17.655 --> 00:14:19.467 very important lifestyle change,

NOTE Confidence: 0.989252264444444

00:14:19.470 --> 00:14:20.949 especially for patients

NOTE Confidence: 0.989252264444444

00:14:20.949 --> 00:14:22.428 undergoing cancer treatment,

NOTE Confidence: 0.989252264444444

00:14:22.430 --> 00:14:24.644 as it's been shown to positively

NOTE Confidence: 0.989252264444444

00:14:24.644 --> 00:14:26.120 impact response to treatments and

NOTE Confidence: 0.989252264444444

00:14:26.187 --> 00:14:28.392 decrease the likelihood that patients

NOTE Confidence: 0.989252264444444

00:14:28.392 --> 00:14:30.156 will develop second malignancies

NOTE Confidence: 0.989252264444444

00:14:30.156 --> 00:14:32.268 and increase rates of survival.

NOTE Confidence: 0.989252264444444

00:14:32.270 --> 00:14:34.022 Tobacco treatment programs are

NOTE Confidence: 0.989252264444444

00:14:34.022 --> 00:14:36.212 currently being offered at federally

NOTE Confidence: 0.989252264444444

00:14:36.212 --> 00:14:37.492 designated Comprehensive cancer

NOTE Confidence: 0.989252264444444

00:14:37.492 --> 00:14:39.850 centers such as Yale Cancer Center

NOTE Confidence: 0.989252264444444

00:14:39.850 --> 00:14:42.090 and at Smilow Cancer Hospital.

NOTE Confidence: 0.989252264444444

00:14:42.090 --> 00:14:43.746 All treatment components are

NOTE Confidence: 0.989252264444444

00:14:43.746 --> 00:14:45.816 evidence based and patients are

NOTE Confidence: 0.989252264444444

00:14:45.816 --> 00:14:47.731 treated with FDA approved first

NOTE Confidence: 0.989252264444444

00:14:47.731 --> 00:14:49.526 line medications as well as

NOTE Confidence: 0.989252264444444

00:14:49.526 --> 00:14:51.545 smoking cessation counseling that

NOTE Confidence: 0.989252264444444

00:14:51.545 --> 00:14:53.669 stresses appropriate coping skills.

NOTE Confidence: 0.989252264444444

00:14:53.670 --> 00:14:55.938 More information is available at Yale

NOTE Confidence: 0.989252264444444

00:14:55.938 --> 00:14:57.983 Cancer Center dot org. You're listening

NOTE Confidence: 0.989252264444444

00:14:57.983 --> 00:14:59.839 to Connecticut Public Radio.

NOTE Confidence: 0.895813331666667

00:15:01.010 --> 00:15:03.110 Welcome back to Yale Cancer Answers.

NOTE Confidence: 0.895813331666667

00:15:03.110 --> 00:15:04.718 This is doctor Anees Chagpar

NOTE Confidence: 0.895813331666667

00:15:04.718 --> 00:15:06.520 and I'm joined tonight by

NOTE Confidence: 0.895813331666667

00:15:06.520 --> 00:15:08.185 my guest doctor Terri Parker.

NOTE Confidence: 0.895813331666667

00:15:08.190 --> 00:15:09.918 We're talking about hematogic

NOTE Confidence: 0.895813331666667

00:15:09.918 --> 00:15:11.058 malignancies,

NOTE Confidence: 0.895813331666667

00:15:11.058 --> 00:15:13.890 and particularly Doctor Parker's

NOTE Confidence: 0.895813331666667

00:15:13.890 --> 00:15:16.146 specialty of multiple myeloma.

NOTE Confidence: 0.895813331666667

00:15:16.146 --> 00:15:18.422 Now, right before the break,

NOTE Confidence: 0.895813331666667

00:15:18.422 --> 00:15:22.067 Terri, you were saying that a lot of people

NOTE Confidence: 0.895813331666667

00:15:22.067 --> 00:15:25.031 are diagnosed with multiple myeloma when

NOTE Confidence: 0.895813331666667

00:15:25.031 --> 00:15:28.579 anemia is found on a routine blood test.

NOTE Confidence: 0.895813331666667

00:15:28.580 --> 00:15:29.712 And that

00:15:29.712 --> 00:15:31.410 the first step is oftentimes to

00:15:31.476 --> 00:15:33.520 rule out the things that are common,

00:15:34.584 --> 00:15:37.776 rule out iron deficiency,

00:15:37.780 --> 00:15:40.558 anemia and B12, and folic acid.

00:15:40.560 --> 00:15:42.246 And all of those good things.

00:15:42.250 --> 00:15:43.082 But ultimately,

00:15:43.082 --> 00:15:46.410 if all of those things are ruled out,

00:15:46.410 --> 00:15:48.430 how then does the diagnosis

00:15:48.430 --> 00:15:50.915 proceed for people actually to be

00:15:50.915 --> 00:15:52.885 found to have multiple myeloma?

00:15:53.180 --> 00:15:55.336 And so the first step is actually

00:15:55.336 --> 00:15:57.139 additional blood in urine studies,

00:15:57.140 --> 00:16:00.316 so we will do a battery of tests,

00:16:00.320 --> 00:16:03.260 specifically tests that are called a serum

00:16:03.260 --> 00:16:04.026 protein electrophoresis,

00:16:04.026 --> 00:16:07.090 which is a blood test that looks to

NOTE Confidence: 0.98833048

00:16:07.159 --> 00:16:09.840 see if there's an increase in abnormal

NOTE Confidence: 0.98833048

00:16:09.840 --> 00:16:11.890 or monoclonal protein in the blood.

NOTE Confidence: 0.98833048

00:16:11.890 --> 00:16:14.098 We do a similar test in the urine.

NOTE Confidence: 0.98833048

00:16:14.100 --> 00:16:17.268 We will test other specific things

NOTE Confidence: 0.98833048

00:16:17.268 --> 00:16:19.380 called an immunofixation electrophoresis,

NOTE Confidence: 0.98833048

00:16:19.380 --> 00:16:20.442 quantitative immunoglobulins,

NOTE Confidence: 0.98833048

00:16:20.442 --> 00:16:23.097 and serum free light chains.

NOTE Confidence: 0.98833048

00:16:23.100 --> 00:16:25.652 And we put together all of these blood

NOTE Confidence: 0.98833048

00:16:25.652 --> 00:16:28.360 test and urine studies to determine if

NOTE Confidence: 0.98833048

00:16:28.360 --> 00:16:30.910 there is a monoclonal protein present

NOTE Confidence: 0.98833048

00:16:30.910 --> 00:16:33.549 which is a protein that's being secreted

NOTE Confidence: 0.98833048

00:16:33.550 --> 00:16:35.360 by an abnormal plasma cell.

NOTE Confidence: 0.986793898333333

00:16:35.840 --> 00:16:38.840 And so if you find that,

NOTE Confidence: 0.986793898333333

00:16:38.840 --> 00:16:41.576 then that means that people have

NOTE Confidence: 0.986793898333333

00:16:41.576 --> 00:16:43.600 multiple myeloma?

00:16:43.630 --> 00:16:45.400 Not necessarily, as I mentioned earlier,

00:16:45.400 --> 00:16:47.805 we can see a monoclonal

00:16:47.805 --> 00:16:49.248 protein precursor conditions,

00:16:49.250 --> 00:16:52.050 and so we take a look at the whole picture.

00:16:52.050 --> 00:16:54.066 So we look at the amount

00:16:54.066 --> 00:16:55.074 of monoclonal protein.

00:16:55.080 --> 00:16:58.068 If the patient has any other

00:16:58.068 --> 00:17:01.464 systemic symptoms, such as anemia,

00:17:01.464 --> 00:17:03.858 renal kidney insufficiency,

00:17:03.860 --> 00:17:06.308 or bone pain,

00:17:06.310 --> 00:17:08.396 this is more consistent with what

00:17:08.396 --> 00:17:10.936 we would call a monoclonal gammopathy

00:17:10.936 --> 00:17:12.517 of undetermined significance,

00:17:12.520 --> 00:17:14.398 that would be considered low risk

00:17:14.398 --> 00:17:16.678 that we would just have to observe,

00:17:16.680 --> 00:17:19.277 or if there were a significant amount

NOTE Confidence: 0.981546156666667

00:17:19.277 --> 00:17:21.646 of protein or other symptoms that

NOTE Confidence: 0.981546156666667

00:17:21.646 --> 00:17:24.397 would make us go one step further,

NOTE Confidence: 0.981546156666667

00:17:24.400 --> 00:17:26.395 which would be a bone marrow biopsy,

NOTE Confidence: 0.981546156666667

00:17:26.400 --> 00:17:29.022 which is the definitive way to

NOTE Confidence: 0.981546156666667

00:17:29.022 --> 00:17:30.770 diagnose multiple myeloma.

NOTE Confidence: 0.980887858421053

00:17:31.150 --> 00:17:33.887 And so when somebody has a bone

NOTE Confidence: 0.980887858421053

00:17:33.887 --> 00:17:36.469 marrow biopsy what exactly does that

NOTE Confidence: 0.980887858421053

00:17:36.469 --> 00:17:39.127 tell you?

NOTE Confidence: 0.980887858421053

00:17:39.130 --> 00:17:40.380 The bone marrow

NOTE Confidence: 0.96012846

00:17:40.390 --> 00:17:44.046 biopsy itself tells us what is the actual

NOTE Confidence: 0.96012846

00:17:44.046 --> 00:17:46.879 percentage of abnormal plasma cells.

NOTE Confidence: 0.96012846

00:17:46.880 --> 00:17:49.130 So we're looking for these abnormal

NOTE Confidence: 0.96012846

00:17:49.130 --> 00:17:50.630 or monoclonal plasma cells.

NOTE Confidence: 0.96012846

00:17:50.630 --> 00:17:53.238 So kind of one type of plasma cell,

NOTE Confidence: 0.96012846

00:17:53.240 --> 00:17:55.544 and they need to be over

NOTE Confidence: 0.96012846

00:17:55.544 --> 00:17:57.078 10% in the bone marrow.

NOTE Confidence: 0.96012846

00:17:57.078 --> 00:17:58.800 So that's what we're looking for,

NOTE Confidence: 0.96012846

00:17:58.800 --> 00:18:01.376 and that is diagnostic of multiple myeloma.

NOTE Confidence: 0.987973545

00:18:01.630 --> 00:18:03.646 And then if you find that,

NOTE Confidence: 0.987973545

00:18:03.650 --> 00:18:05.490 what's the next step?

NOTE Confidence: 0.987973545

00:18:05.490 --> 00:18:07.194 Is there staging or do you

NOTE Confidence: 0.987973545

00:18:07.194 --> 00:18:08.330 go straight to treatment?

NOTE Confidence: 0.987973545

00:18:08.330 --> 00:18:10.200 How does that work?

NOTE Confidence: 0.985522453333333

00:18:10.230 --> 00:18:13.150 Then we have to make another determination

NOTE Confidence: 0.985522453333333

00:18:13.150 --> 00:18:16.028 so we have what we call smoldering

NOTE Confidence: 0.985522453333333

00:18:16.030 --> 00:18:18.570 Multiple myeloma, which are symptomatic

00:18:22.774 --> 00:18:25.334 so individuals who have smoldering multiple

NOTE Confidence: 0.985522453333333

00:18:25.334 --> 00:18:28.610 myeloma meet that strict cutoff of 10%

NOTE Confidence: 0.985522453333333

00:18:28.610 --> 00:18:31.286 involvement of bone marrow but

NOTE Confidence: 0.985522453333333

00:18:31.286 --> 00:18:33.070 are really otherwise asymptomatic,

NOTE Confidence: 0.985522453333333

00:18:33.070 --> 00:18:36.120 meaning they don't have anemia,

NOTE Confidence: 0.985522453333333

00:18:36.120 --> 00:18:38.610 they have preserved kidney function,

NOTE Confidence: 0.985522453333333

00:18:38.610 --> 00:18:41.730 their calcium levels are within normal range,

NOTE Confidence: 0.985522453333333

00:18:41.730 --> 00:18:44.709 they don't have any bone pains or what we

NOTE Confidence: 0.985522453333333

00:18:44.709 --> 00:18:47.844 call lytic lesions or holes in their bones,

NOTE Confidence: 0.985522453333333

00:18:47.850 --> 00:18:49.762 and so these people we would really observe.

NOTE Confidence: 0.985522453333333

00:18:49.762 --> 00:18:52.184 But they have a higher risk of

NOTE Confidence: 0.985522453333333

00:18:52.184 --> 00:18:53.886 progression to symptomatic multiple

NOTE Confidence: 0.985522453333333

00:18:53.886 --> 00:18:56.046 myeloma that would need treatment.

NOTE Confidence: 0.971358918333333

00:18:56.220 --> 00:18:57.360 Wait a minute, wait a minute.

NOTE Confidence: 0.971358918333333

00:18:57.360 --> 00:19:00.198 So how do these people with

NOTE Confidence: 0.971358918333333

00:19:00.198 --> 00:19:01.617 smoldering multiple myeloma

NOTE Confidence: 0.971358918333333

00:19:01.617 --> 00:19:04.117 present if they don't have anemia?

NOTE Confidence: 0.971358918333333

00:19:04.120 --> 00:19:05.920 They don't have any

NOTE Confidence: 0.971358918333333

00:19:05.920 --> 00:19:07.270 abnormal kidney function.

NOTE Confidence: 0.971358918333333

00:19:07.270 --> 00:19:09.420 How do you see them?

NOTE Confidence: 0.902867700294118

00:19:09.870 --> 00:19:13.038 Yeah, so a lot of times these individuals

NOTE Confidence: 0.902867700294118

00:19:13.038 --> 00:19:15.692 are referred because they had a blood

NOTE Confidence: 0.902867700294118

00:19:15.692 --> 00:19:18.874 test done and that was what we call

NOTE Confidence: 0.902867700294118

00:19:18.874 --> 00:19:20.736 a comprehensive metabolic panel that

NOTE Confidence: 0.902867700294118

00:19:20.736 --> 00:19:22.932 included a total protein and they

NOTE Confidence: 0.902867700294118

00:19:22.932 --> 00:19:25.436 were noted to have a total protein

NOTE Confidence: 0.902867700294118

00:19:25.436 --> 00:19:27.796 that was elevated and so their primary

NOTE Confidence: 0.902867700294118

00:19:27.796 --> 00:19:29.800 care physician picked up that the

NOTE Confidence: 0.902867700294118

00:19:29.865 --> 00:19:32.161 total protein was high and then sent

NOTE Confidence: 0.902867700294118

00:19:32.161 --> 00:19:34.301 them for further evaluation for an

NOTE Confidence: 0.902867700294118

00:19:34.301 --> 00:19:36.485 issue such as a monoclonal protein.

NOTE Confidence: 0.902867700294118

00:19:36.490 --> 00:19:38.186 So that's one way we often will see

NOTE Confidence: 0.902867700294118

00:19:38.190 --> 00:19:43.428 these individuals, another is that monoclonal

NOTE Confidence: 0.902867700294118

00:19:43.430 --> 00:19:45.585 gammopathy's and multiple myeloma can

NOTE Confidence: 0.902867700294118

00:19:45.585 --> 00:19:48.360 be associated with other medical problems,

NOTE Confidence: 0.902867700294118

00:19:48.360 --> 00:19:51.990 for example as serum protein electrophoresis,

NOTE Confidence: 0.902867700294118

00:19:51.990 --> 00:19:54.406 which is the blood tests that we do

NOTE Confidence: 0.902867700294118

00:19:54.406 --> 00:19:57.094 as part of the evaluation for myeloma

NOTE Confidence: 0.902867700294118

00:19:57.094 --> 00:19:59.709 is often done an evaluation for

NOTE Confidence: 0.902867700294118

00:19:59.709 --> 00:20:01.849 secondary causes for osteoporosis,

NOTE Confidence: 0.902867700294118

00:20:01.850 --> 00:20:04.778 so sometimes patients will have it done as

NOTE Confidence: 0.902867700294118

00:20:04.778 --> 00:20:08.276 a work up if they are have osteoporosis at

NOTE Confidence: 0.902867700294118

00:20:08.280 --> 00:20:11.016 a younger age.

NOTE Confidence: 0.902867700294118

00:20:11.020 --> 00:20:13.080 We also can see neuropathy,

NOTE Confidence: 0.902867700294118

00:20:13.080 --> 00:20:15.628 so that's kind of numbness and tingling

NOTE Confidence: 0.902867700294118

00:20:15.628 --> 00:20:17.500 in the extremities in patients who

NOTE Confidence: 0.902867700294118

00:20:17.500 --> 00:20:19.648 have come up with these as well and

NOTE Confidence: 0.902867700294118

00:20:19.648 --> 00:20:21.244 so sometimes a neurologist as part

NOTE Confidence: 0.902867700294118

00:20:21.244 --> 00:20:23.570 of a work up for other reasons for a

NOTE Confidence: 0.902867700294118

00:20:23.570 --> 00:20:25.566 patient to have a peripheral neuropathy

NOTE Confidence: 0.902867700294118

00:20:25.566 --> 00:20:27.670 will send these studies,

NOTE Confidence: 0.902867700294118

00:20:27.670 --> 00:20:29.511 so that's how a lot of these

NOTE Confidence: 0.902867700294118

00:20:29.511 --> 00:20:30.520 patients present to us

NOTE Confidence: 0.902867700294118

00:20:30.520 --> 00:20:34.210 if they don't have any other organ damage.

NOTE Confidence: 0.981505832222222

00:20:34.360 --> 00:20:37.816 So these people with smoldering

NOTE Confidence: 0.981505832222222

00:20:37.816 --> 00:20:39.544 multiple myeloma

NOTE Confidence: 0.981505832222222

00:20:39.550 --> 00:20:41.590 still could have symptoms, right?

NOTE Confidence: 0.981505832222222

00:20:41.590 --> 00:20:43.315 They could still have this

NOTE Confidence: 0.981505832222222

00:20:43.315 --> 00:20:44.005 peripheral neuropathy,

NOTE Confidence: 0.981505832222222

00:20:44.010 --> 00:20:46.788 or they could still have osteoporosis,

NOTE Confidence: 0.981505832222222

00:20:46.790 --> 00:20:48.960 but they just can't have the other

NOTE Confidence: 0.981505832222222

00:20:48.960 --> 00:20:51.015 things that you mentioned, right?

NOTE Confidence: 0.981505832222222

00:20:51.015 --> 00:20:53.190 The anemia, the kidney function,

NOTE Confidence: 0.981505832222222

00:20:53.190 --> 00:20:55.068 the lytic lesions of the bone?

NOTE Confidence: 0.981505832222222

00:20:55.070 --> 00:20:56.220 Do I have that right?

NOTE Confidence: 0.981505832222222

00:20:56.220 --> 00:20:57.040 Yeah, that's

NOTE Confidence: 0.989416709230769

00:20:57.050 --> 00:20:58.628 right. So they can't really have

NOTE Confidence: 0.989416709230769

00:20:58.628 --> 00:21:00.629 what we call this end organ damage.

NOTE Confidence: 0.989416709230769

00:21:00.630 --> 00:21:03.225 You know our classification between

NOTE Confidence: 0.989416709230769

00:21:03.225 --> 00:21:05.301 smoldering myeloma and myeloma

NOTE Confidence: 0.989416709230769

00:21:05.301 --> 00:21:07.610 has changed over the years,

NOTE Confidence: 0.989416709230769

00:21:07.610 --> 00:21:10.508 and we now also have a set of criteria

NOTE Confidence: 0.989416709230769

00:21:10.510 --> 00:21:13.062 that I call my myeloma defining

NOTE Confidence: 0.989416709230769

00:21:13.062 --> 00:21:15.236 events which don't have to be organ

NOTE Confidence: 0.989416709230769

00:21:15.236 --> 00:21:17.944 damage but just a kind of a significant

NOTE Confidence: 0.989416709230769

00:21:17.944 --> 00:21:20.533 amount of disease burden, and we will

NOTE Confidence: 0.989416709230769

00:21:20.533 --> 00:21:22.238 treat those individuals as myeloma,

NOTE Confidence: 0.989416709230769

00:21:22.240 --> 00:21:24.607 even if they don't have any of the other

NOTE Confidence: 0.989416709230769

00:21:24.607 --> 00:21:26.457 classic symptoms you just mentioned.

NOTE Confidence: 0.989416709230769

00:21:26.460 --> 00:21:28.945 So really, we're looking for a significant

NOTE Confidence: 0.989416709230769

00:21:28.945 --> 00:21:30.769 involvement of the bone marrow,

NOTE Confidence: 0.989416709230769

00:21:30.770 --> 00:21:32.989 and we classify that as over 60%

NOTE Confidence: 0.989416709230769

00:21:32.990 --> 00:21:35.550 involvement or a very significant

NOTE Confidence: 0.989416709230769

00:21:35.550 --> 00:21:38.110 serum free light chain burden.

NOTE Confidence: 0.989416709230769

00:21:38.110 --> 00:21:40.558 And for those individuals we will treat them

NOTE Confidence: 0.989416709230769

00:21:40.560 --> 00:21:41.571 as multiple myeloma,

NOTE Confidence: 0.989416709230769

00:21:41.571 --> 00:21:43.930 even if they don't have those classic

NOTE Confidence: 0.989416709230769

00:21:43.989 --> 00:21:45.987 end organ damage that we mentioned.

NOTE Confidence: 0.989690398333333

00:21:46.490 --> 00:21:49.388 What does treatment entail?

NOTE Confidence: 0.989690398333333

00:21:49.390 --> 00:21:51.030 Yeah, so treatment for a

NOTE Confidence: 0.980263855

00:21:51.040 --> 00:21:54.024 newly diagnosed patient is

NOTE Confidence: 0.980263855

00:21:54.024 --> 00:21:57.008 a combination of drugs.

NOTE Confidence: 0.980263855

00:21:57.010 --> 00:21:57.798 Typically what you would

NOTE Confidence: 0.980263855

00:21:57.800 --> 00:21:58.664 consider chemotherapy.

NOTE Confidence: 0.980263855

00:21:58.664 --> 00:22:02.120 So we often refer to it as frontline

NOTE Confidence: 0.980263855

00:22:02.195 --> 00:22:04.100 or induction chemotherapy,

NOTE Confidence: 0.980263855

00:22:04.100 --> 00:22:07.775 as we're trying to induce a response.

NOTE Confidence: 0.980263855

00:22:07.780 --> 00:22:09.328 The treatment typically consists

NOTE Confidence: 0.980263855

00:22:09.328 --> 00:22:11.263 of a combination of three

NOTE Confidence: 0.980263855

00:22:11.270 --> 00:22:13.556 or four drugs and the determination

NOTE Confidence: 0.980263855

00:22:13.556 --> 00:22:16.234 of how many drugs and which drugs

NOTE Confidence: 0.980263855

00:22:16.234 --> 00:22:18.747 are often based on a few different

NOTE Confidence: 0.980263855

00:22:18.823 --> 00:22:21.468 patient specific factors in addition

NOTE Confidence: 0.980263855

00:22:21.468 --> 00:22:23.584 to disease specific factors.

NOTE Confidence: 0.980263855

00:22:23.590 --> 00:22:25.320 And so when we talk

NOTE Confidence: 0.980263855

00:22:25.320 --> 00:22:26.434 about patient specific factors,

NOTE Confidence: 0.980263855

00:22:26.434 --> 00:22:29.490 we really look at a patient and ask

00:22:30.201 --> 00:22:32.296 the question, how well do we think

NOTE Confidence: 0.980263855

00:22:32.296 --> 00:22:34.594 this individual could tolerate the treatment?

NOTE Confidence: 0.980263855

00:22:34.600 --> 00:22:38.128 What is their fitness?

NOTE Confidence: 0.980263855

00:22:38.130 --> 00:22:40.279 We don't necessarily look at

NOTE Confidence: 0.980263855

00:22:40.279 --> 00:22:42.619 age but kind of the overall person.

NOTE Confidence: 0.980263855

00:22:42.620 --> 00:22:44.636 What are their other medical problems,

NOTE Confidence: 0.980263855

00:22:44.640 --> 00:22:45.980 their comorbidities?

38

NOTE Confidence: 0.980263855

00:22:45.980 --> 00:22:49.330 What medications are they taking?

00:22:49.902 --> 00:22:51.332 Do they have heart dysfunction

NOTE Confidence: 0.980263855

00:22:51.332 --> 00:22:52.400 at baseline?

NOTE Confidence: 0.980263855

00:22:52.400 --> 00:22:54.255 Do they already have a neuropathy

NOTE Confidence: 0.980263855

00:22:54.255 --> 00:22:55.368 that's pretty severe?

NOTE Confidence: 0.980263855

00:22:55.370 --> 00:22:58.906 And then we look at the myeloma itself,

NOTE Confidence: 0.980263855

00:22:58.910 --> 00:23:00.690 meaning for every bone marrow

NOTE Confidence: 0.980263855

00:23:00.690 --> 00:23:02.114 biopsy that we do,

NOTE Confidence: 0.980263855

00:23:02.120 --> 00:23:04.535 we also send a study called cytogenetics

NOTE Confidence: 0.980263855

00:23:04.540 --> 00:23:07.196 and that is the study of

NOTE Confidence: 0.980263855

00:23:07.196 --> 00:23:09.010 chromosomes within that plasma cell.

NOTE Confidence: 0.980263855

00:23:09.010 --> 00:23:10.648 So we're really looking to see

NOTE Confidence: 0.980263855

00:23:10.648 --> 00:23:12.700 if there is any rearrangements.

NOTE Confidence: 0.980263855

00:23:12.700 --> 00:23:14.130 Additions, deletions,

NOTE Confidence: 0.980263855

00:23:14.130 --> 00:23:17.705 breaks and by utilizing these

NOTE Confidence: 0.980263855

00:23:17.705 --> 00:23:19.135 cytogenetic testing,

NOTE Confidence: 0.980263855

00:23:19.140 --> 00:23:21.498 we determine if someone is considered

NOTE Confidence: 0.980263855

00:23:21.498 --> 00:23:24.366 high risk or standard risk and that

NOTE Confidence: 0.980263855

00:23:24.366 --> 00:23:26.406 influences which treatment we give.

NOTE Confidence: 0.954238302142857

00:23:27.160 --> 00:23:29.278 And so what is the difference

NOTE Confidence: 0.954238302142857

00:23:29.278 --> 00:23:31.795 between a high risk and a standard

NOTE Confidence: 0.954238302142857

00:23:31.795 --> 00:23:33.720 risk patient in terms of treatment?

NOTE Confidence: 0.954238302142857

00:23:33.720 --> 00:23:35.448 I mean is it more drugs?

NOTE Confidence: 0.954238302142857

00:23:35.450 --> 00:23:37.518 Is it more duration?

NOTE Confidence: 0.954238302142857

00:23:37.518 --> 00:23:39.586 Is it more toxic?

NOTE Confidence: 0.954238302142857

00:23:39.590 --> 00:23:41.210 Yeah, so it's not necessarily

NOTE Confidence: 0.984312788235294

00:23:41.220 --> 00:23:42.585 more drugs. Fortunately,

NOTE Confidence: 0.984312788235294

00:23:42.585 --> 00:23:45.770 in multiple myeloma most of our drugs

NOTE Confidence: 0.984312788235294

00:23:45.850 --> 00:23:48.566 are very targeted to the plasma cell,

NOTE Confidence: 0.984312788235294

00:23:48.570 --> 00:23:50.677 but it may just be a

NOTE Confidence: 0.984312788235294

00:23:50.677 --> 00:23:52.020 different type of drug.

NOTE Confidence: 0.984312788235294

00:23:52.020 --> 00:23:55.464 So it may consist of four

NOTE Confidence: 0.984312788235294

00:23:55.464 --> 00:23:58.479 drugs versus a 3 drug regimen.

NOTE Confidence: 0.984312788235294

00:23:58.480 --> 00:24:00.286 You know there's still a lot

NOTE Confidence: 0.984312788235294

00:24:00.286 --> 00:24:02.092 of research being done to see

NOTE Confidence: 0.984312788235294

00:24:02.092 --> 00:24:03.718 what is truly the best regimen

NOTE Confidence: 0.984312788235294

00:24:03.718 --> 00:24:04.914 for high risk individuals,

NOTE Confidence: 0.984312788235294

00:24:04.914 --> 00:24:07.038 and there's a lot of different

NOTE Confidence: 0.984312788235294

00:24:07.038 --> 00:24:08.100 opinions out there,

NOTE Confidence: 0.984312788235294

00:24:08.100 --> 00:24:09.372 but it's usually going to be

NOTE Confidence: 0.984312788235294

00:24:09.372 --> 00:24:10.836 a four or three drug regimen

NOTE Confidence: 0.984312788235294

00:24:10.836 --> 00:24:11.956 with potentially one difference

NOTE Confidence: 0.984312788235294

00:24:11.956 --> 00:24:13.710 in one of the medications.

NOTE Confidence: 0.979574660666667

00:24:15.060 --> 00:24:18.388 And as we think about

NOTE Confidence: 0.979574660666667

00:24:18.388 --> 00:24:21.020 multiple myeloma and how you treat it,

NOTE Confidence: 0.979574660666667

00:24:21.020 --> 00:24:24.058 it seems to me that

NOTE Confidence: 0.979574660666667

00:24:24.060 --> 00:24:27.084 part of this has to do with how advanced

NOTE Confidence: 0.979574660666667

00:24:27.084 --> 00:24:30.122 the myeloma is in terms of how much of

NOTE Confidence: 0.979574660666667

00:24:30.122 --> 00:24:32.997 the bone marrow is actually involved,

NOTE Confidence: 0.979574660666667

00:24:33.000 --> 00:24:35.210 whether there's end organ damage,

NOTE Confidence: 0.979574660666667

00:24:35.210 --> 00:24:38.157 health, how fit the patient is, and so on.

NOTE Confidence: 0.979574660666667

00:24:38.157 --> 00:24:41.851 All of which makes me wonder about

NOTE Confidence: 0.979574660666667

00:24:41.851 --> 00:24:45.590 how important it is to get to a doctor

NOTE Confidence: 0.979574660666667

00:24:45.590 --> 00:24:47.249 as soon as you have those symptoms,

NOTE Confidence: 0.979574660666667

00:24:47.250 --> 00:24:50.764 how important it is to come to

NOTE Confidence: 0.979574660666667

00:24:50.764 --> 00:24:53.074 get diagnosed early versus late?

NOTE Confidence: 0.979574660666667

00:24:53.080 --> 00:24:54.455 I mean certainly that's something

NOTE Confidence: 0.979574660666667

00:24:54.455 --> 00:24:56.678 we talk about in a lot of cancers,

NOTE Confidence: 0.979574660666667

00:24:56.680 --> 00:24:59.263 but it sounds like in multiple myeloma

NOTE Confidence: 0.979574660666667

00:24:59.263 --> 00:25:01.829 there's really no real screening tests.

NOTE Confidence: 0.979574660666667

00:25:01.830 --> 00:25:04.290 No recommendations for annual blood work,

NOTE Confidence: 0.979574660666667

00:25:04.290 --> 00:25:04.956 for example.

NOTE Confidence: 0.979574660666667

00:25:04.956 --> 00:25:07.287 So does that really play a role?

00:25:07.290 --> 00:25:09.194 Or does it not matter as much?

00:25:10.430 --> 00:25:12.930 Yeah, so in multiple myeloma

00:25:12.930 --> 00:25:15.051 as in a lot of the hematological

00:25:15.051 --> 00:25:15.960 malignancies

00:25:15.960 --> 00:25:20.064 we don't stage it as we do our

00:25:22.186 --> 00:25:24.610 solid tumors and

00:25:24.681 --> 00:25:27.106 we don't talk about metastasis and

00:25:27.106 --> 00:25:30.228 so really the amount of bone marrow

00:25:30.230 --> 00:25:33.156 involvement doesn't play a role in what

00:25:33.156 --> 00:25:36.548 we decide to do for upfront treatments.

00:25:36.550 --> 00:25:38.236 So our staging is really based

00:25:38.236 --> 00:25:40.296 on blood work and we

00:25:40.296 --> 00:25:42.048 will often treat someone who is

00:25:42.050 --> 00:25:44.864 say a stage one versus stage three,

00:25:44.870 --> 00:25:47.066 very similarly because we have very

00:25:47.066 --> 00:25:49.799 effective drugs in the first line setting.

NOTE Confidence: 0.85477839

00:25:49.800 --> 00:25:51.705 But obviously we would want

NOTE Confidence: 0.85477839

00:25:51.705 --> 00:25:53.229 to seek medical attention

NOTE Confidence: 0.85477839

00:25:53.230 --> 00:25:54.890 if you had any symptoms,

NOTE Confidence: 0.85477839

00:25:54.890 --> 00:25:57.888 because say you present with kidney

NOTE Confidence: 0.85477839

00:25:57.888 --> 00:25:59.640 dysfunction, renal failure that

NOTE Confidence: 0.85477839

00:25:59.640 --> 00:26:02.309 does limit some of the treatments

NOTE Confidence: 0.85477839

00:26:02.309 --> 00:26:04.745 that we could give up front.

NOTE Confidence: 0.85477839

00:26:04.750 --> 00:26:07.225 And obviously if you start to have bone pain,

NOTE Confidence: 0.85477839

00:26:07.230 --> 00:26:09.126 you want to seek medical attention

NOTE Confidence: 0.85477839

00:26:09.126 --> 00:26:11.044 because you wouldn't want to end

NOTE Confidence: 0.85477839

00:26:11.044 --> 00:26:12.534 up with a pathological fracture.

NOTE Confidence: 0.85477839

00:26:12.540 --> 00:26:14.454 So we do encourage people if

NOTE Confidence: 0.85477839

00:26:14.454 --> 00:26:16.621 they have any symptoms to really

NOTE Confidence: 0.85477839

00:26:16.621 --> 00:26:17.860 seek medical attention.

00:26:19.840 --> 00:26:21.810 And the sooner you are diagnosed,

NOTE Confidence: 0.85477839

00:26:21.810 --> 00:26:23.435 the potentially more treatment options

NOTE Confidence: 0.85477839

00:26:23.435 --> 00:26:25.689 you have and the better shape you

NOTE Confidence: 0.85477839

00:26:25.689 --> 00:26:27.405 will be in to tolerate treatment.

NOTE Confidence: 0.975478205714286

00:26:28.400 --> 00:26:30.234 The other thing that you mentioned,

NOTE Confidence: 0.975478205714286

00:26:30.240 --> 00:26:31.758 which I think is something that

NOTE Confidence: 0.975478205714286

00:26:31.758 --> 00:26:33.339 it's important that we pick up on,

NOTE Confidence: 0.975478205714286

00:26:33.340 --> 00:26:34.936 is that you said that the

NOTE Confidence: 0.975478205714286

00:26:34.936 --> 00:26:36.600 treatments now are very effective.

NOTE Confidence: 0.975478205714286

00:26:36.600 --> 00:26:38.770 So tell us a little bit about

NOTE Confidence: 0.975478205714286

00:26:38.770 --> 00:26:40.530 prognosis of patients who are

NOTE Confidence: 0.975478205714286

00:26:40.530 --> 00:26:42.070 treated with multiple myeloma.

NOTE Confidence: 0.938468535882353

00:26:43.170 --> 00:26:46.452 Fortunately we have keep

NOTE Confidence: 0.938468535882353

00:26:46.452 --> 00:26:49.238 moving our overall survival and

NOTE Confidence: 0.938468535882353

00:26:49.238 --> 00:26:51.738 the percent surviving at five

NOTE Confidence: 0.938468535882353

00:26:51.738 --> 00:26:54.455 years each year thanks to the

NOTE Confidence: 0.938468535882353

00:26:54.455 --> 00:26:56.227 development of newer treatments.

NOTE Confidence: 0.938468535882353

00:26:56.230 --> 00:26:58.840 And so it used to be,

NOTE Confidence: 0.938468535882353

00:26:58.840 --> 00:27:00.751 several years ago, say in 2005,

NOTE Confidence: 0.938468535882353

00:27:00.751 --> 00:27:02.653 if we were giving this talk,

NOTE Confidence: 0.938468535882353

00:27:02.660 --> 00:27:04.556 we would talk about an overall

NOTE Confidence: 0.938468535882353

00:27:04.556 --> 00:27:06.846 survival of two to five years

NOTE Confidence: 0.938468535882353

00:27:11.360 --> 00:27:13.190 and so more recently we say

NOTE Confidence: 0.938468535882353

00:27:13.190 --> 00:27:15.334 five to 10 years and we're now

NOTE Confidence: 0.938468535882353

00:27:15.334 --> 00:27:16.958 talking about potentially

NOTE Confidence: 0.938468535882353

00:27:16.958 --> 00:27:19.345 moving that to 10 to 15 years.

NOTE Confidence: 0.938468535882353

00:27:19.350 --> 00:27:21.247 If you look at the most recent

NOTE Confidence: 0.938468535882353

00:27:21.247 --> 00:27:23.383 data in the United States regarding

NOTE Confidence: 0.938468535882353

00:27:23.383 --> 00:27:25.478 the percentage of patients that

NOTE Confidence: 0.938468535882353

00:27:25.478 --> 00:27:27.289 are alive at five years,

NOTE Confidence: 0.938468535882353

00:27:27.290 --> 00:27:29.610 it's about just over 55%.

NOTE Confidence: 0.938468535882353

00:27:29.610 --> 00:27:30.819 So, very encouraging.

NOTE Confidence: 0.986903675714286

00:27:31.640 --> 00:27:33.579 That's really great, and I guess

NOTE Confidence: 0.986903675714286

00:27:33.579 --> 00:27:35.578 that leads me to my next question,

NOTE Confidence: 0.986903675714286

00:27:35.580 --> 00:27:37.650 which is what are the exciting

NOTE Confidence: 0.986903675714286

00:27:37.650 --> 00:27:39.853 advances that are going on in

NOTE Confidence: 0.986903675714286

00:27:39.853 --> 00:27:41.728 terms of multiple myeloma research.

NOTE Confidence: 0.986903675714286

00:27:41.730 --> 00:27:44.619 How are you and others trying to move

NOTE Confidence: 0.986903675714286

00:27:44.619 --> 00:27:47.730 the ball even further down the field?

NOTE Confidence: 0.960313159090909

00:27:47.740 --> 00:27:49.152 That's a great question.

NOTE Confidence: 0.960313159090909

00:27:49.152 --> 00:27:51.270 There is so much exciting research

NOTE Confidence: 0.960313159090909

00:27:51.335 --> 00:27:53.302 being done here at Yale and within

NOTE Confidence: 0.960313159090909

00:27:53.302 --> 00:27:55.229 the field of multiple myeloma.

NOTE Confidence: 0.960313159090909

00:27:55.230 --> 00:27:57.316 And really at all stages.

NOTE Confidence: 0.960313159090909

00:27:58.856 --> 00:28:01.890 Right now we often will refer to multiple myeloma

NOTE Confidence: 0.960313159090909

00:28:01.890 --> 00:28:04.962 as a cancer that is treatable

NOTE Confidence: 0.960313159090909

00:28:04.962 --> 00:28:06.498 but not curable.

NOTE Confidence: 0.960313159090909

00:28:06.500 --> 00:28:08.360 So we're currently looking at

NOTE Confidence: 0.960313159090909

00:28:08.360 --> 00:28:10.220 ways to improve that frontline

NOTE Confidence: 0.960313159090909

00:28:10.286 --> 00:28:11.732 therapy maintenance therapy,

NOTE Confidence: 0.960313159090909

00:28:11.732 --> 00:28:14.768 in individuals who have relapsed refractory.

00:28:15.673 --> 00:28:17.178 The most exciting things are

NOTE Confidence: 0.960313159090909

00:28:17.178 --> 00:28:19.028 probably the development of CAR T

NOTE Confidence: 0.960313159090909

00:28:19.030 --> 00:28:20.940 which recently gained FDA approval

NOTE Confidence: 0.960313159090909

00:28:20.940 --> 00:28:23.368 and in addition to looking at the

NOTE Confidence: 0.960313159090909

00:28:23.368 --> 00:28:25.152 biospecific antibodies which are

NOTE Confidence: 0.960313159090909

00:28:25.152 --> 00:28:26.936 currently in clinical trial.

NOTE Confidence: 0.98945111

00:28:27.680 --> 00:28:29.588 Doctor Terri Parker is an assistant

NOTE Confidence: 0.987287846

00:28:29.600 --> 00:28:31.740 professor of medicine and hematology

NOTE Confidence: 0.965515966666667

00:28:31.750 --> 00:28:34.010 at the Yale School of Medicine. If

NOTE Confidence: 0.987882643333333

00:28:34.020 --> 00:28:35.945 you have questions, the address is

NOTE Confidence: 0.987882643333333

00:28:35.945 --> 00:28:38.600 cancer answers at yale dot edu

NOTE Confidence: 0.98743631

00:28:38.600 --> 00:28:40.560 and past editions of the program are

NOTE Confidence: 0.98743631

00:28:40.560 --> 00:28:42.630 available in audio and written form at

NOTE Confidence: 0.987470666363636

00:28:43.860 --> 00:28:44.123 yalecancercenter.org.

NOTE Confidence: 0.987470666363636

00:28:44.123 --> 00:28:46.227 We hope you'll join us next week to

NOTE Confidence: 0.987470666363636

00:28:46.227 --> 00:28:47.804 learn more about the fight against

NOTE Confidence: 0.987470666363636

00:28:47.804 --> 00:28:49.586 cancer here on Connecticut Public

NOTE Confidence: 0.987470666363636

00:28:49.586 --> 00:28:51.639 radio funding for Yale Cancer

NOTE Confidence: 0.987470666363636

00:28:51.640 --> 00:28:53.748 Answers is provided by Smilow Cancer

NOTE Confidence: 0.9677776175

00:28:53.760 --> 00:28:55.468 Hospital and AstraZeneca.