WEBVTT

00:00:00.000 --> 00:00:03.162 Funding for Yale Cancer Answers is

NOTE Confidence: 0.800554309090909

00:00:03.162 --> 00:00:06.150 provided by Smilow Cancer Hospital.

NOTE Confidence: 0.800554309090909

00:00:06.150 --> 00:00:08.235 Welcome to Yale Cancer Answers

NOTE Confidence: 0.800554309090909

00:00:08.235 --> 00:00:09.903 with Doctor Anees Chagpar.

NOTE Confidence: 0.800554309090909

00:00:09.910 --> 00:00:11.686 Yale Cancer Answers features the

NOTE Confidence: 0.800554309090909

00:00:11.686 --> 00:00:13.431 latest information on cancer care

NOTE Confidence: 0.800554309090909

00:00:13.431 --> 00:00:14.898 by welcoming oncologists and

NOTE Confidence: 0.800554309090909

00:00:14.898 --> 00:00:17.022 specialists who are on the forefront

NOTE Confidence: 0.800554309090909

00:00:17.022 --> 00:00:18.907 of the battle to fight cancer.

NOTE Confidence: 0.800554309090909

00:00:18.910 --> 00:00:20.914 This week it's a conversation about

NOTE Confidence: 0.800554309090909

00:00:20.914 --> 00:00:22.742 the field of classical hematology

NOTE Confidence: 0.800554309090909

00:00:22.742 --> 00:00:24.450 with Doctor George Goshua.

NOTE Confidence: 0.800554309090909

00:00:24.450 --> 00:00:26.592 Dr Goshua is an assistant professor

NOTE Confidence: 0.800554309090909

00:00:26.592 --> 00:00:28.380 of medicine and hematology at

NOTE Confidence: 0.800554309090909

00:00:28.380 --> 00:00:29.865 the Yale School of Medicine,

NOTE Confidence: 0.800554309090909

00:00:29.870 --> 00:00:31.640 where Doctor Chagpar is a

NOTE Confidence: 0.800554309090909

00:00:31.640 --> 00:00:33.056 professor of surgical oncology.

NOTE Confidence: 0.908400801818182

00:00:34.180 --> 00:00:35.888 George, maybe we can start off by

NOTE Confidence: 0.908400801818182

00:00:35.888 --> 00:00:37.628 you telling us a little bit more

NOTE Confidence: 0.908400801818182

00:00:37.628 --> 00:00:39.470 about yourself and what it is you do.

NOTE Confidence: 0.871379075714286

00:00:39.600 --> 00:00:41.518 Of course, it would be my pleasure.

NOTE Confidence: 0.871379075714286

00:00:41.520 --> 00:00:44.575 I am a classical hematologist

NOTE Confidence: 0.871379075714286

00:00:44.575 --> 00:00:46.608 by training and methodologically

NOTE Confidence: 0.871379075714286

00:00:46.608 --> 00:00:48.628 I'm trained in decision science,

NOTE Confidence: 0.871379075714286

00:00:48.630 --> 00:00:50.658 so I'm also a decision scientist.

NOTE Confidence: 0.871379075714286

00:00:50.660 --> 00:00:53.488 And on faculty here at Yale

NOTE Confidence: 0.871379075714286

00:00:53.488 --> 00:00:55.480 University School of Medicine,

NOTE Confidence: 0.871379075714286

00:00:55.480 --> 00:00:56.720 I run the Goshua lab,

NOTE Confidence: 0.871379075714286

00:00:56.720 --> 00:00:59.164 which is a quantitative decision

NOTE Confidence: 0.871379075714286

00:00:59.164 --> 00:01:00.997 analytic modeling lab,

NOTE Confidence: 0.871379075714286

00:01:01.000 --> 00:01:03.412 the first in the country to

NOTE Confidence: 0.871379075714286

00:01:03.412 --> 00:01:05.020 focus on classical hematology.

NOTE Confidence: 0.871379075714286

00:01:05.020 --> 00:01:07.204 And I have the privilege of working

NOTE Confidence: 0.871379075714286

00:01:07.204 --> 00:01:08.296 with undergraduate students,

NOTE Confidence: 0.871379075714286

00:01:08.300 --> 00:01:10.110 graduate students at the School

NOTE Confidence: 0.871379075714286

00:01:10.110 --> 00:01:11.196 of Public Health,

NOTE Confidence: 0.871379075714286

00:01:11.200 --> 00:01:13.928 the School of Medicine,

NOTE Confidence: 0.871379075714286

00:01:13.930 --> 00:01:14.860 and beyond.

NOTE Confidence: 0.92811733375

00:01:14.950 --> 00:01:18.686 Many of us have heard about hematology,

NOTE Confidence: 0.92811733375

00:01:18.690 --> 00:01:22.170 but what exactly is classical hematology?

NOTE Confidence: 0.92811733375

00:01:22.170 --> 00:01:24.830 It seems to remind me about classical

NOTE Confidence: 0.92811733375

00:01:24.830 --> 00:01:27.450 music as opposed to music in general.

NOTE Confidence: 0.92811733375

00:01:27.450 --> 00:01:30.922 So tell us more about what exactly is

NOTE Confidence: 0.92811733375

00:01:30.922 --> 00:01:33.509 classical hematology and how that varies

NOTE Confidence: 0.92811733375

00:01:33.509 --> 00:01:35.975 from all other forms of hematology.

NOTE Confidence: 0.807841352857143

00:01:36.650 --> 00:01:39.597 I'm really glad you asked that question.

NOTE Confidence: 0.807841352857143

00:01:39.600 --> 00:01:42.568 And that's because the field has really

NOTE Confidence: 0.807841352857143

00:01:42.568 --> 00:01:45.737 struggled with its name until very recently.

NOTE Confidence: 0.807841352857143

00:01:45.740 --> 00:01:48.800 The American Society of Hematology

NOTE Confidence: 0.807841352857143

00:01:48.800 --> 00:01:52.838 has put forward a campaign to

NOTE Confidence: 0.807841352857143

00:01:52.840 --> 00:01:55.540 unify the field and call

NOTE Confidence: 0.807841352857143

00:01:55.540 --> 00:01:57.160 it classical hematology.

NOTE Confidence: 0.807841352857143

00:01:57.160 --> 00:01:59.688 And the way that it differs from other

NOTE Confidence: 0.807841352857143

00:01:59.688 --> 00:02:02.353 hematology is that we take care of patients

NOTE Confidence: 0.807841352857143

00:02:02.353 --> 00:02:04.340 with non cancerous blood disorders.

NOTE Confidence: 0.807841352857143

00:02:04.340 --> 00:02:06.772 And the reason why the naming matters in

NOTE Confidence: 0.807841352857143

00:02:06.772 --> 00:02:09.125 particular is the other names for the field.

NOTE Confidence: 0.807841352857143

00:02:09.130 --> 00:02:11.120 There's two. There is non

NOTE Confidence: 0.807841352857143

00:02:11.120 --> 00:02:11.916 malignant hematology,

NOTE Confidence: 0.807841352857143

00:02:11.920 --> 00:02:15.586 so non cancerous and then benign

NOTE Confidence: 0.807841352857143

00:02:15.586 --> 00:02:18.490 hematology which is quite common and

NOTE Confidence: 0.807841352857143

00:02:18.490 --> 00:02:20.780 that latter term is particularly problematic

NOTE Confidence: 0.807841352857143

00:02:23.864 --> 00:02:27.379 because as we probably will discuss here,

NOTE Confidence: 0.807841352857143

00:02:27.380 --> 00:02:30.080 a lot of our patients have

NOTE Confidence: 0.807841352857143

00:02:30.080 --> 00:02:32.021 life altering diseases that they

NOTE Confidence: 0.807841352857143

00:02:32.021 --> 00:02:35.269 have to live with and in some cases

NOTE Confidence: 0.807841352857143

00:02:35.270 --> 00:02:38.042 very deadly diseases that can be

NOTE Confidence: 0.807841352857143

00:02:38.042 --> 00:02:39.910 deadly without appropriate treatment.

NOTE Confidence: 0.807841352857143

00:02:39.910 --> 00:02:41.982 And so for that reason there has been

NOTE Confidence: 0.807841352857143

00:02:41.982 --> 00:02:44.185 also a lot of frustration on our

NOTE Confidence: 0.807841352857143

00:02:44.185 --> 00:02:46.197 patients part with regards to being

NOTE Confidence: 0.807841352857143

00:02:46.197 --> 00:02:48.165 labeled as quote unquote benign.

NOTE Confidence: 0.807841352857143

00:02:48.170 --> 00:02:50.322 And so for that reason the field has

NOTE Confidence: 0.807841352857143

00:02:50.322 --> 00:02:52.366 moved forward now just this year

NOTE Confidence: 0.807841352857143

00:02:52.366 --> 00:02:53.818 actually with classical hematology.

NOTE Confidence: 0.860865417777778

00:02:54.190 --> 00:02:56.710 So give us some examples of

NOTE Confidence: 0.860865417777778

00:02:56.710 --> 00:03:00.730 some of the not malignant

NOTE Confidence: 0.860865417777778

00:03:00.730 --> 00:03:02.820 hematologic disorders that you treat.

NOTE Confidence: 0.875279113

00:03:03.350 --> 00:03:05.140 Of course, there's a lot

NOTE Confidence: 0.875279113

00:03:05.140 --> 00:03:06.930 of rare diseases in here,

NOTE Confidence: 0.875279113

00:03:06.930 --> 00:03:09.338 but there's also less rare diseases too.

NOTE Confidence: 0.875279113

00:03:09.340 --> 00:03:11.426 And so maybe I'll start with diseases

NOTE Confidence: 0.875279113

00:03:11.426 --> 00:03:13.588 that folks might be more familiar with,

NOTE Confidence: 0.875279113

00:03:13.590 --> 00:03:15.406 even though some of them are still rare.

NOTE Confidence: 0.875279113

00:03:15.410 --> 00:03:17.563 Sickle cell disease in particular, right?

NOTE Confidence: 0.875279113

00:03:17.563 --> 00:03:19.747 I think a lot of us know individuals

NOTE Confidence: 0.875279113

00:03:19.747 --> 00:03:21.829 who live with sickle cell disease.

NOTE Confidence: 0.875279113

00:03:21.830 --> 00:03:23.888 But then as we move forward,

NOTE Confidence: 0.875279113

00:03:23.890 --> 00:03:26.590 think about all of your

NOTE Confidence: 0.875279113

00:03:26.590 --> 00:03:28.210 auto immune conditions,

NOTE Confidence: 0.875279113

00:03:28.210 --> 00:03:30.065 so conditions where the immune

NOTE Confidence: 0.875279113

00:03:30.065 --> 00:03:31.178 system is dysregulated.

NOTE Confidence: 0.875279113

00:03:31.180 --> 00:03:33.260 And then that causes derangements

NOTE Confidence: 0.875279113

00:03:33.260 --> 00:03:34.924 in the blood parameters.

NOTE Confidence: 0.875279113

00:03:34.930 --> 00:03:38.050 And so these are diseases in the realm of one

NOTE Confidence: 0.875279113

00:03:38.119 --> 00:03:41.170 to three in a million in terms of incidence.

NOTE Confidence: 0.875279113

00:03:41.170 --> 00:03:43.902 And examples include paroxysmal

NOTE Confidence: 0.875279113

00:03:43.902 --> 00:03:45.268 nocturnal hemoglobinuria,

NOTE Confidence: 0.875279113

00:03:45.270 --> 00:03:48.526 immune thrombotic thrombocytopenic purpura,

NOTE Confidence: 0.875279113

00:03:48.526 --> 00:03:50.968 chronic immune thrombocytopenia,

NOTE Confidence: 0.875279113

00:03:50.970 --> 00:03:51.314 porphyrias.

NOTE Confidence: 0.875279113

00:03:51.314 --> 00:03:53.034 And then when you think

NOTE Confidence: 0.875279113

00:03:53.034 --> 00:03:54.410 about more common things,

NOTE Confidence: 0.875279113

00:03:54.410 --> 00:03:56.985 venous thromboembolism which affects hundreds

NOTE Confidence: 0.875279113

00:03:56.985 --> 00:03:59.970 of thousands of Americans every year,

NOTE Confidence: 0.875279113

00:03:59.970 --> 00:04:01.800 iron deficiency anemia

NOTE Confidence: 0.875279113

00:04:01.800 --> 00:04:04.840 which affects a lot of our men and women,

NOTE Confidence: 0.875279113

00:04:04.840 --> 00:04:06.220 and in particular pregnant

NOTE Confidence: 0.875279113

00:04:06.220 --> 00:04:08.080 women as well in this country.

00:04:08.381 --> 00:04:10.187 So that's a little bit

NOTE Confidence: 0.875279113

00:04:10.187 --> 00:04:12.353 of a sampling of the more rare

NOTE Confidence: 0.875279113

00:04:12.353 --> 00:04:13.848 and then the more common.

NOTE Confidence: 0.847119621818182

00:04:15.360 --> 00:04:18.456 It really seems to be a

NOTE Confidence: 0.847119621818182

00:04:18.456 --> 00:04:21.510 wide spectrum of disease.

NOTE Confidence: 0.847119621818182

00:04:21.510 --> 00:04:23.334 And is the only linkage

NOTE Confidence: 0.847119621818182

00:04:23.334 --> 00:04:25.256 between all of them that they

NOTE Confidence: 0.847119621818182

00:04:25.256 --> 00:04:27.158 have to have something to do

NOTE Confidence: 0.847119621818182

00:04:27.158 --> 00:04:29.159 with blood and blood disorders?

NOTE Confidence: 0.737516091428572

00:04:29.370 --> 00:04:31.589 I think that's very fair to say.

NOTE Confidence: 0.737516091428572

00:04:31.590 --> 00:04:34.887 Yeah, it's interesting because at least in

NOTE Confidence: 0.737516091428572

00:04:34.887 --> 00:04:39.097 the case of let's say autoimmune disorders.

NOTE Confidence: 0.737516091428572

00:04:39.100 --> 00:04:41.900 Sometimes in some of them if

NOTE Confidence: 0.737516091428572

00:04:41.900 --> 00:04:43.400 you want to think about it,

NOTE Confidence: 0.737516091428572

00:04:43.400 --> 00:04:45.812 this is how I think about it with my

NOTE Confidence: 0.737516091428572

00:04:45.812 --> 00:04:47.603 patients when we talk together

NOTE Confidence: 0.737516091428572

00:04:47.603 --> 00:04:49.838 in clinic, you can think about it as

NOTE Confidence: 0.737516091428572

00:04:49.840 --> 00:04:51.700 the disease spilling over into the

NOTE Confidence: 0.737516091428572

00:04:51.700 --> 00:04:54.039 blood and the blood is very sensitive.

NOTE Confidence: 0.737516091428572

00:04:54.040 --> 00:04:56.404 We have multiple cell lines

NOTE Confidence: 0.737516091428572

00:04:56.404 --> 00:04:57.980 that can be affected.

NOTE Confidence: 0.737516091428572

00:04:57.980 --> 00:05:00.215 We have multiple proteins floating

NOTE Confidence: 0.737516091428572

00:05:00.215 --> 00:05:03.000 in there and our immune system

NOTE Confidence: 0.737516091428572

00:05:03.000 --> 00:05:05.436 that has been so finely tuned over

NOTE Confidence: 0.737516091428572

00:05:05.436 --> 00:05:07.590 over millennia and any of these

NOTE Confidence: 0.737516091428572

00:05:07.590 --> 00:05:09.315 parameters can be thrown off.

NOTE Confidence: 0.737516091428572

00:05:09.320 --> 00:05:11.184 And so I think it's very fair to

NOTE Confidence: 0.737516091428572

00:05:11.184 --> 00:05:13.195 say that the commonality here is

NOTE Confidence: 0.737516091428572

00:05:13.195 --> 00:05:15.045 that there's some underlying issue

NOTE Confidence: 0.737516091428572

00:05:15.045 --> 00:05:17.189 that's happening to one of or more

NOTE Confidence: 0.737516091428572

00:05:17.189 --> 00:05:18.950 of those parameters in the blood.

NOTE Confidence: 0.820449326

00:05:19.700 --> 00:05:22.778 Because it also seems that

NOTE Confidence: 0.820449326

00:05:22.778 --> 00:05:25.412 when you're thinking about things as

NOTE Confidence: 0.820449326

00:05:25.412 --> 00:05:30.530 diverse as ITP versus sickle cell,

NOTE Confidence: 0.820449326

00:05:30.530 --> 00:05:33.710 anemia versus thromboembolism,

NOTE Confidence: 0.820449326

00:05:33.710 --> 00:05:36.350 the treatments are very different.

NOTE Confidence: 0.820449326

00:05:36.350 --> 00:05:39.530 The patient populations are very different.

NOTE Confidence: 0.820449326

00:05:39.530 --> 00:05:41.564 Even the blood cells that are

NOTE Confidence: 0.820449326

00:05:41.564 --> 00:05:42.920 affected are very different.

NOTE Confidence: 0.8878559425

00:05:44.070 --> 00:05:45.987 That's exactly correct.

NOTE Confidence: 0.8878559425

00:05:45.987 --> 00:05:49.182 There's a beautiful diversity and

NOTE Confidence: 0.8878559425

00:05:49.182 --> 00:05:51.370 heterogeneity within the field.

NOTE Confidence: 0.8878559425

00:05:51.370 --> 00:05:54.280 There are classical hematologists who

NOTE Confidence: 0.8878559425

00:05:54.280 --> 00:05:56.250 particularly focus or sub-specialize

NOTE Confidence: 0.8878559425

00:05:56.250 --> 00:05:58.250 further even within that field.

NOTE Confidence: 0.8878559425

00:05:58.250 --> 00:06:00.049 That is part of the reason why,

NOTE Confidence: 0.8878559425

00:06:00.049 --> 00:06:01.809 because there is such a diversity.

NOTE Confidence: 0.8878559425

00:06:01.810 --> 00:06:04.090 And then there are other classical

NOTE Confidence: 0.8878559425

00:06:04.090 --> 00:06:06.010 hematologists who are more generalists

NOTE Confidence: 0.8878559425

00:06:06.010 --> 00:06:08.698 as they would be in any specialty

NOTE Confidence: 0.8878559425

00:06:08.698 --> 00:06:10.853 that kind of see the full spectrum

NOTE Confidence: 0.8878559425

00:06:10.853 --> 00:06:12.850 and then if there are complications

NOTE Confidence: 0.8878559425

00:06:12.850 --> 00:06:14.490 or there's a particularly

NOTE Confidence: 0.8878559425

00:06:14.490 --> 00:06:16.095 high risk situation,

NOTE Confidence: 0.8878559425

00:06:16.095 --> 00:06:17.700 in those circumstances,

NOTE Confidence: 0.8878559425

00:06:17.700 --> 00:06:21.820 they will often refer to a tertiary

NOTE Confidence: 0.8878559425

00:06:21.820 --> 00:06:24.120 academic Center for further evaluation.

NOTE Confidence: 0.866562610714286

00:06:24.920 --> 00:06:28.408 George, many of us may

NOTE Confidence: 0.866562610714286

00:06:28.408 --> 00:06:31.140 be familiar with some of these

NOTE Confidence: 0.866562610714286

00:06:31.140 --> 00:06:33.220 blood disorders that you mentioned,

NOTE Confidence: 0.866562610714286

00:06:33.220 --> 00:06:35.842 but you also mentioned that you

NOTE Confidence: 0.866562610714286

00:06:35.842 --> 00:06:38.794 have a laboratory that focuses on

NOTE Confidence: 0.866562610714286

00:06:38.794 --> 00:06:41.030 quantitative modeling and decision

NOTE Confidence: 0.866562610714286

00:06:41.030 --> 00:06:44.238 analytics that seems to be very

NOTE Confidence: 0.866562610714286

00:06:44.238 --> 00:06:46.372 different from what we would

NOTE Confidence: 0.866562610714286

00:06:46.372 --> 00:06:48.856 normally think of as a hematologist.

NOTE Confidence: 0.866562610714286

00:06:48.860 --> 00:06:52.038 Tell us more about how those two

NOTE Confidence: 0.866562610714286

00:06:52.038 --> 00:06:54.449 areas of interest and expertise

NOTE Confidence: 0.866562610714286

00:06:54.449 --> 00:06:56.844 kind of merged for you.

NOTE Confidence: 0.918185292727273

00:06:58.440 --> 00:07:00.224 Well, I think it has a lot to

NOTE Confidence: 0.918185292727273

00:07:00.224 --> 00:07:02.308 do with advocacy. By definition,

NOTE Confidence: 0.918185292727273

00:07:02.308 --> 00:07:06.420 a lot of our diseases are rare in

NOTE Confidence: 0.918185292727273

00:07:06.535 --> 00:07:08.564 our field all across the spectrum.

NOTE Confidence: 0.918185292727273

00:07:08.564 --> 00:07:10.160 When you combine them all together,

NOTE Confidence: 0.918185292727273

00:07:10.160 --> 00:07:12.445 you really get very

NOTE Confidence: 0.918185292727273

00:07:12.445 --> 00:07:14.273 significant numbers of individuals.

NOTE Confidence: 0.918185292727273

00:07:14.280 --> 00:07:15.600 But within each bin,

NOTE Confidence: 0.918185292727273

00:07:15.600 --> 00:07:18.519 if we want to think about it that way,

NOTE Confidence: 0.918185292727273

00:07:18.520 --> 00:07:21.257 some of the diseases are particularly rare.

NOTE Confidence: 0.918185292727273

00:07:21.260 --> 00:07:23.609 And it is for that reason that you start

NOTE Confidence: 0.918185292727273

00:07:23.609 --> 00:07:25.832 to think more and more about decision

NOTE Confidence: 0.918185292727273

00:07:25.832 --> 00:07:28.678 making in an area where there are a lot of

NOTE Confidence: 0.918185292727273

00:07:28.680 --> 00:07:31.704 diseases that are rare and in an

NOTE Confidence: 0.918185292727273

00:07:31.704 --> 00:07:34.730 area where there are, let's say,

NOTE Confidence: 0.918185292727273

00:07:34.730 --> 00:07:37.930 less prospective randomized clinical trials,

NOTE Confidence: 0.918185292727273

00:07:37.930 --> 00:07:41.580 perhaps more of a dependence

NOTE Confidence: 0.918185292727273

00:07:41.580 --> 00:07:43.770 on observational data,

NOTE Confidence: 0.918185292727273

00:07:43.770 --> 00:07:46.994 you start to think about trying to make

NOTE Confidence: 0.918185292727273

00:07:46.994 --> 00:07:49.371 decisions with your patients in the

NOTE Confidence: 0.918185292727273

00:07:49.371 --> 00:07:52.510 clinic and in the hospital in some cases,

NOTE Confidence: 0.918185292727273

00:07:52.510 --> 00:07:55.408 some of which have very significant

NOTE Confidence: 0.918185292727273

00:07:55.408 --> 00:07:58.789 consequences or can have very significant

NOTE Confidence: 0.918185292727273

00:07:58.790 --> 00:08:00.799 consequences on the rest of their lives.

NOTE Confidence: 0.918185292727273

00:08:00.800 --> 00:08:03.940 We use strong immunosuppressive agents.

NOTE Confidence: 0.918185292727273

00:08:03.940 --> 00:08:06.328 We use anticoagulation,

NOTE Confidence: 0.918185292727273

00:08:06.328 --> 00:08:09.225 blood thinners that can predispose

NOTE Confidence: 0.918185292727273

00:08:09.225 --> 00:08:11.400 people if using correctly,

NOTE Confidence: 0.918185292727273

00:08:11.400 --> 00:08:16.930 unnecessarily to a risk of bleeding and so

NOTE Confidence: 0.918185292727273

00:08:16.930 --> 00:08:20.675 it feels very natural to try and

NOTE Confidence: 0.918185292727273

00:08:20.680 --> 00:08:23.084 quantitatively try to approach

NOTE Confidence: 0.918185292727273

00:08:23.084 --> 00:08:27.389 these decisions and put them in a

NOTE Confidence: 0.918185292727273

00:08:27.389 --> 00:08:30.379 framework that matters to patients,

NOTE Confidence: 0.918185292727273

00:08:30.380 --> 00:08:31.364 to physicians,

NOTE Confidence: 0.918185292727273

00:08:31.364 --> 00:08:34.808 to payers and then try to push

NOTE Confidence: 0.918185292727273

00:08:34.808 --> 00:08:37.919 the care of patients forward.

NOTE Confidence: 0.918185292727273

00:08:37.920 --> 00:08:40.224 And decision science is really nice

NOTE Confidence: 0.918185292727273

00:08:40.224 --> 00:08:42.599 because one of the very wonderful

NOTE Confidence: 0.918185292727273

00:08:42.599 --> 00:08:44.903 and unique things about it is

NOTE Confidence: 0.918185292727273

00:08:44.903 --> 00:08:46.879 it's very explicit in its

NOTE Confidence: 0.918185292727273

00:08:46.880 --> 00:08:49.766 measurement and reporting of uncertainty and

NOTE Confidence: 0.918185292727273

00:08:49.766 --> 00:08:53.316 so any decision that we make in our lives,

NOTE Confidence: 0.918185292727273

00:08:53.320 --> 00:08:55.063 anytime you think of a trade off

NOTE Confidence: 0.918185292727273

00:08:55.063 --> 00:08:56.925 and I think about trade-offs all

NOTE Confidence: 0.918185292727273

00:08:56.925 --> 00:08:59.037 of the time, decision scientists do,

NOTE Confidence: 0.918185292727273

00:08:59.040 --> 00:09:01.150 but everyone does beyond decision

NOTE Confidence: 0.918185292727273

00:09:01.150 --> 00:09:01.994 scientists too,

NOTE Confidence: 0.918185292727273

00:09:02.000 --> 00:09:02.322 right?

NOTE Confidence: 0.918185292727273

00:09:02.322 --> 00:09:04.576 It doesn't have to apply to medicine

NOTE Confidence: 0.918185292727273

00:09:04.576 --> 00:09:06.767 every time you think of a trade off.

NOTE Confidence: 0.918185292727273

00:09:06.770 --> 00:09:10.410 And the downstream effects thereof,

NOTE Confidence: 0.918185292727273

00:09:10.410 --> 00:09:12.498 all of that can be captured and that's

NOTE Confidence: 0.918185292727273

00:09:12.498 --> 00:09:14.253 the really exciting part because I

NOTE Confidence: 0.918185292727273

00:09:14.253 --> 00:09:16.362 think we have an opportunity to move

NOTE Confidence: 0.918185292727273

00:09:16.362 --> 00:09:18.682 the care of these patients forward and help improve

NOTE Confidence: 0.918185292727273

00:09:19.165 --> 00:09:22.015 the areas of our health system,

NOTE Confidence: 0.918185292727273

00:09:22.020 --> 00:09:24.309 and there are many that need improvement.

NOTE Confidence: 0.913294190333333

00:09:26.000 --> 00:09:28.688 And so it sounds like you know this

NOTE Confidence: 0.913294190333333

00:09:28.688 --> 00:09:30.845 whole area of decision science

NOTE Confidence: 0.913294190333333

00:09:30.845 --> 00:09:32.717 would have broad applicability

NOTE Confidence: 0.913294190333333

00:09:32.717 --> 00:09:35.562 to all fields of medicine really

NOTE Confidence: 0.913294190333333

00:09:35.562 --> 00:09:38.286 where we're balancing as you say

NOTE Confidence: 0.913294190333333

00:09:38.286 --> 00:09:40.672 trade-offs between risks and benefits

NOTE Confidence: 0.913294190333333

00:09:40.672 --> 00:09:43.570 and how each patient might value

NOTE Confidence: 0.913294190333333

00:09:43.656 --> 00:09:46.356 each of those things differently.

NOTE Confidence: 0.913294190333333

00:09:46.360 --> 00:09:49.648 Talk a little bit more about kind of

NOTE Confidence: 0.913294190333333

00:09:49.648 --> 00:09:52.814 the practical examples of how you

NOTE Confidence: 0.913294190333333

00:09:52.814 --> 00:09:55.900 applied decision science in your clinical

NOTE Confidence: 0.913294190333333

00:09:55.900 --> 00:09:56.480 endeavors.

NOTE Confidence: 0.92623335

00:09:58.010 --> 00:10:02.570 Of course. We'll start with an

NOTE Confidence: 0.92623335

00:10:02.570 --> 00:10:05.133 earlier example

NOTE Confidence: 0.92623335

00:10:05.133 --> 00:10:08.346 and then I'll work my way forward.

NOTE Confidence: 0.92623335

00:10:08.350 --> 00:10:10.966 So anytime you think of a decision problem,

NOTE Confidence: 0.92623335

00:10:10.970 --> 00:10:12.698 and you think of trade-offs,

NOTE Confidence: 0.92623335

00:10:12.700 --> 00:10:14.850 you want to be able to make sure that you

NOTE Confidence: 0.92623335

00:10:14.911 --> 00:10:17.062 have it laid out clearly in front of you.

NOTE Confidence: 0.92623335

00:10:17.070 --> 00:10:20.398 And so I'm going to use a very

NOTE Confidence: 0.92623335

00:10:20.398 --> 00:10:22.454 interesting problem because it employs

NOTE Confidence: 0.92623335

00:10:22.454 --> 00:10:24.902 3 different strategies in a disease

NOTE Confidence: 0.92623335

00:10:24.902 --> 00:10:27.348 where your platelet counts are low,

NOTE Confidence: 0.92623335

00:10:27.350 --> 00:10:28.661 chronic immune thrombocytopenia.

NOTE Confidence: 0.92623335

00:10:28.661 --> 00:10:31.283 When your platelet counts are low,

NOTE Confidence: 0.92623335

00:10:31.290 --> 00:10:33.467 you're at an increased risk of bleeding.

NOTE Confidence: 0.92623335

00:10:33.470 --> 00:10:36.290 And for that reason

NOTE Confidence: 0.92623335

00:10:36.290 --> 00:10:38.170 there are treatment options and

NOTE Confidence: 0.92623335

00:10:38.170 --> 00:10:40.537 treatments that we do pursue for

NOTE Confidence: 0.92623335

00:10:40.537 --> 00:10:42.637 individuals whose platelet

NOTE Confidence: 0.92623335

00:10:42.637 --> 00:10:44.681 counts are particularly low because

NOTE Confidence: 0.92623335

00:10:44.681 --> 00:10:47.073 we don't want them to have a bleed,

NOTE Confidence: 0.92623335

00:10:47.080 --> 00:10:49.696 especially if it's a bleed in the head,

NOTE Confidence: 0.92623335

00:10:49.700 --> 00:10:51.860 sometimes a bleed in the gut,

00:10:52.628 --> 00:10:54.164 the bleeding can really happen anywhere,

NOTE Confidence: 0.92623335

00:10:54.170 --> 00:10:56.837 but there are certain higher risk areas.

NOTE Confidence: 0.92623335

00:10:56.840 --> 00:10:59.336 And so in thinking through that,

NOTE Confidence: 0.92623335

00:10:59.340 --> 00:11:01.116 by the time an individual has,

NOTE Confidence: 0.92623335

00:11:01.120 --> 00:11:02.016 let's say,

NOTE Confidence: 0.92623335

00:11:02.016 --> 00:11:04.256 a diagnosis of immune thrombocytopenia,

NOTE Confidence: 0.92623335

00:11:04.260 --> 00:11:05.814 by the time they reach 12 months,

NOTE Confidence: 0.92623335

00:11:05.820 --> 00:11:07.060 it's defined as chronic.

NOTE Confidence: 0.92623335

00:11:07.060 --> 00:11:09.221 It's done that way because there's a

NOTE Confidence: 0.92623335

00:11:09.221 --> 00:11:11.197 subset of individuals who will never go on

NOTE Confidence: 0.92623335

00:11:11.197 --> 00:11:13.597 to develop chronic immune thrombocytopenia.

NOTE Confidence: 0.92623335

00:11:13.600 --> 00:11:15.810 Their platelet counts will improve,

NOTE Confidence: 0.92623335

00:11:15.810 --> 00:11:16.966 sometimes even spontaneously and

NOTE Confidence: 0.92623335

00:11:16.966 --> 00:11:19.210 sometimes with a little bit of treatment,

NOTE Confidence: 0.92623335

00:11:19.210 --> 00:11:22.090 and they will no longer need any treatment.

NOTE Confidence: 0.92623335

00:11:22.090 --> 00:11:23.980 But for the vast majority of

NOTE Confidence: 0.92623335

00:11:23.980 --> 00:11:26.192 individuals who do get to the stage

NOTE Confidence: 0.92623335

00:11:26.192 --> 00:11:28.264 of having one year of this disease,

NOTE Confidence: 0.92623335

00:11:28.270 --> 00:11:31.358 now they have a chronic disease and within

NOTE Confidence: 0.92623335

00:11:31.358 --> 00:11:34.999 we know the Natural History of that disease

NOTE Confidence: 0.92623335

00:11:35.000 --> 00:11:35.840 at that point,

NOTE Confidence: 0.92623335

00:11:35.840 --> 00:11:37.240 it's much less likely that

NOTE Confidence: 0.92623335

00:11:37.240 --> 00:11:38.559 it's going to dissipate.

NOTE Confidence: 0.92623335

00:11:38.560 --> 00:11:40.192 And so often these

NOTE Confidence: 0.92623335

00:11:40.192 --> 00:11:41.416 individuals need treatment.

NOTE Confidence: 0.92623335

00:11:41.420 --> 00:11:43.020 And so the treatment decision

NOTE Confidence: 0.92623335

00:11:43.020 --> 00:11:43.980 here is fascinating.

NOTE Confidence: 0.92623335

00:11:43.980 --> 00:11:46.409 And this is 1 classic example where

NOTE Confidence: 0.92623335

00:11:46.409 --> 00:11:48.171 a randomized control trial will

NOTE Confidence: 0.92623335

00:11:48.171 --> 00:11:50.139 never be done for reasons that

NOTE Confidence: 0.92623335

00:11:50.139 --> 00:11:51.980 will become clear in a moment.

NOTE Confidence: 0.92623335

00:11:51.980 --> 00:11:55.300 And that is the fact that our treatment

NOTE Confidence: 0.92623335

00:11:55.300 --> 00:11:57.640 options include three options here.

NOTE Confidence: 0.92623335

00:11:57.640 --> 00:11:59.986 And they include a surgical approach,

NOTE Confidence: 0.92623335

00:11:59.986 --> 00:12:02.358 splenectomy to try and remove the

NOTE Confidence: 0.92623335

00:12:02.358 --> 00:12:04.934 spleen and remove a site of production.

NOTE Confidence: 0.92623335

00:12:04.940 --> 00:12:07.684 Of all of these auto antibodies that

NOTE Confidence: 0.92623335

00:12:07.684 --> 00:12:10.797 are in part driving the disease process.

NOTE Confidence: 0.92623335

00:12:10.800 --> 00:12:13.094 And we know that about 60% of

NOTE Confidence: 0.92623335

00:12:13.094 --> 00:12:15.656 individuals will then never have to

NOTE Confidence: 0.92623335

00:12:15.656 --> 00:12:19.200 think or worry about this disease again.

NOTE Confidence: 0.92623335

00:12:19.200 --> 00:12:20.668 At the same time,

NOTE Confidence: 0.92623335

00:12:20.668 --> 00:12:22.136 splenectomy carries the risks

NOTE Confidence: 0.92623335

00:12:22.136 --> 00:12:24.038 of infection that are lifelong.

NOTE Confidence: 0.92623335

00:12:24.040 --> 00:12:25.560 Although they are time variant,

NOTE Confidence: 0.92623335

00:12:25.560 --> 00:12:27.380 they change over time.

NOTE Confidence: 0.92623335

00:12:27.380 --> 00:12:30.396 It carries a risk of developing a

NOTE Confidence: 0.92623335

00:12:30.396 --> 00:12:32.236 blood clot overtime going forward

NOTE Confidence: 0.92623335

00:12:32.236 --> 00:12:34.470 and that's also time variant that

NOTE Confidence: 0.92623335

00:12:34.470 --> 00:12:35.538 changes with time.

NOTE Confidence: 0.92623335

00:12:35.540 --> 00:12:38.030 And separately anytime you perform surgery

NOTE Confidence: 0.92623335

00:12:38.030 --> 00:12:41.478 there is a risk of having complications.

NOTE Confidence: 0.92623335

00:12:41.480 --> 00:12:44.966 And even deaths from the surgery itself.

NOTE Confidence: 0.92623335

00:12:44.970 --> 00:12:47.147 And so you think about a strategy

NOTE Confidence: 0.92623335

00:12:47.147 --> 00:12:49.341 like that versus thinking about the

NOTE Confidence: 0.92623335

00:12:49.341 --> 00:12:51.326 two other options which include

NOTE Confidence: 0.92623335

00:12:51.330 --> 00:12:52.593 thrombopoietin receptor agonists,

NOTE Confidence: 0.92623335

00:12:52.593 --> 00:12:54.277 which are these therapies

NOTE Confidence: 0.92623335

00:12:54.277 --> 00:12:56.290 that are taken chronically,

NOTE Confidence: 0.92623335

00:12:56.290 --> 00:12:58.538 either intravenously or by

NOTE Confidence: 0.92623335

00:12:58.538 --> 00:13:02.050 mouth as tablets and

NOTE Confidence: 0.92623335

00:13:02.050 --> 00:13:04.145 technically have been studied going

NOTE Confidence: 0.92623335

00:13:04.145 --> 00:13:06.240 forward and thinking about using

NOTE Confidence: 0.92623335

00:13:06.308 --> 00:13:08.527 them for a prolonged period of time,

NOTE Confidence: 0.916680930666667

00:13:08.530 --> 00:13:11.095 so not just a few weeks or a few

NOTE Confidence: 0.916680930666667

00:13:11.095 --> 00:13:13.289 months with the idea being that

NOTE Confidence: 0.916680930666667

00:13:13.290 --> 00:13:14.862 you might have to be on

NOTE Confidence: 0.916680930666667

00:13:14.862 --> 00:13:15.648 this therapy lifelong.

NOTE Confidence: 0.916680930666667

00:13:15.650 --> 00:13:17.074 There are certain very

NOTE Confidence: 0.916680930666667

00:13:17.074 --> 00:13:18.498 expensive costs of course,

NOTE Confidence: 0.916680930666667

00:13:18.500 --> 00:13:19.910 that accrue with this therapy,

NOTE Confidence: 0.916680930666667

00:13:19.910 --> 00:13:23.206 both to the health system and to patients.

NOTE Confidence: 0.916680930666667

00:13:23.210 --> 00:13:25.622 And about 1/3 of patients at a median of

NOTE Confidence: 0.916680930666667

00:13:25.622 --> 00:13:28.450 2 1/2 years can come off of therapy and

NOTE Confidence: 0.916680930666667

00:13:28.450 --> 00:13:30.738 probably be successful

NOTE Confidence: 0.916680930666667

00:13:30.740 --> 00:13:32.420 though we don't have enough follow

NOTE Confidence: 0.916680930666667

00:13:32.420 --> 00:13:34.697 up time to know for sure and then

NOTE Confidence: 0.916680930666667

00:13:34.697 --> 00:13:36.341 separate from that in the last third

00:13:38.310 --> 00:13:40.515 is an immunosuppressive agent called

NOTE Confidence: 0.916680930666667

00:13:40.515 --> 00:13:42.720 Rituximab that depletes those cells

NOTE Confidence: 0.916680930666667

00:13:42.790 --> 00:13:44.875 that produce those troublesome auto

NOTE Confidence: 0.916680930666667

00:13:44.875 --> 00:13:46.960 antibodies and you have response

NOTE Confidence: 0.916680930666667

00:13:47.024 --> 00:13:48.930 in about 50% of individuals

NOTE Confidence: 0.916680930666667

00:13:48.930 --> 00:13:51.270 at about a year.

NOTE Confidence: 0.916680930666667

00:13:51.270 --> 00:13:53.916 And then that response starts to degrade,

NOTE Confidence: 0.916680930666667

00:13:53.920 --> 00:13:55.480 it starts to decrease,

NOTE Confidence: 0.916680930666667

00:13:55.480 --> 00:13:57.430 and people will have relapses.

NOTE Confidence: 0.916680930666667

00:13:57.430 --> 00:13:58.810 And so if you can imagine,

NOTE Confidence: 0.916680930666667

00:13:58.810 --> 00:14:00.290 you have these three options.

NOTE Confidence: 0.916680930666667

00:14:00.290 --> 00:14:01.481 But in truth,

NOTE Confidence: 0.916680930666667

00:14:01.481 --> 00:14:03.863 you can also sequence these options.

NOTE Confidence: 0.916680930666667

00:14:03.870 --> 00:14:06.656 And if you look at the American

NOTE Confidence: 0.916680930666667

00:14:06.656 --> 00:14:08.760 Society of Hematology guidelines,

NOTE Confidence: 0.916680930666667

00:14:08.760 --> 00:14:10.380 there's this inherent struggle with

NOTE Confidence: 0.916680930666667

00:14:10.380 --> 00:14:12.738 how do you actually rank these options

NOTE Confidence: 0.916680930666667

00:14:12.738 --> 00:14:14.778 when they have not been compared

NOTE Confidence: 0.916680930666667

00:14:14.778 --> 00:14:17.058 head-to-head and who is going to be

NOTE Confidence: 0.916680930666667

00:14:17.058 --> 00:14:18.598 randomizing people to receive surgery,

NOTE Confidence: 0.916680930666667

00:14:18.600 --> 00:14:19.965 splenectomy versus not,

NOTE Confidence: 0.916680930666667

00:14:19.965 --> 00:14:22.240 that's not going to happen.

NOTE Confidence: 0.916680930666667

00:14:22.240 --> 00:14:24.994 But we do have 20 years of follow-up data

NOTE Confidence: 0.916680930666667

00:14:24.994 --> 00:14:28.038 with this modality with surgery specifically.

NOTE Confidence: 0.916680930666667

00:14:28.040 --> 00:14:29.436 And in the clinics

NOTE Confidence: 0.916680930666667

00:14:29.436 --> 00:14:32.719 we can see that over the last 20 years,

NOTE Confidence: 0.916680930666667

00:14:32.720 --> 00:14:35.294 the utilization of surgery has significantly

NOTE Confidence: 0.916680930666667

00:14:35.294 --> 00:14:38.698 gone down in part because of these newer,

NOTE Confidence: 0.916680930666667

00:14:38.700 --> 00:14:40.224 more expensive therapies,

NOTE Confidence: 0.916680930666667

00:14:40.224 --> 00:14:41.681 not because

NOTE Confidence: 0.916680930666667

00:14:41.681 --> 00:14:44.768 a splenectomy is not an effective option.

NOTE Confidence: 0.916680930666667

00:14:44.770 --> 00:14:49.018 And so that is a perfect setup then and

NOTE Confidence: 0.916680930666667

00:14:49.018 --> 00:14:51.274 framework to start thinking about how

NOTE Confidence: 0.916680930666667

00:14:51.274 --> 00:14:54.048 do we actually accurately model this,

NOTE Confidence: 0.916680930666667

00:14:54.050 --> 00:14:55.730 how do we show what the benefit is

NOTE Confidence: 0.916680930666667

00:14:55.730 --> 00:14:57.686 on a population level and then can

NOTE Confidence: 0.916680930666667

00:14:57.686 --> 00:14:59.710 we also make it covariate specific?

NOTE Confidence: 0.916680930666667

00:14:59.710 --> 00:15:01.678 Meaning if you look at the

NOTE Confidence: 0.916680930666667

00:15:01.678 --> 00:15:02.334 specific comorbidities,

NOTE Confidence: 0.916680930666667

00:15:02.340 --> 00:15:04.122 IE the diseases that the patients

NOTE Confidence: 0.916680930666667

00:15:04.122 --> 00:15:05.631 have and their likeliness to

NOTE Confidence: 0.916680930666667

00:15:05.631 --> 00:15:07.227 respond to one of these therapies,

NOTE Confidence: 0.916680930666667

00:15:07.230 --> 00:15:09.036 can we build that in further than

NOTE Confidence: 0.916680930666667

00:15:09.036 --> 00:15:11.630 to try and make it an individualized

NOTE Confidence: 0.916680930666667

00:15:11.630 --> 00:15:13.820 personalized treatment decision for them?

NOTE Confidence: 0.81267582

00:15:14.580 --> 00:15:16.880 We'll pick up that conversation,

NOTE Confidence: 0.81267582

00:15:16.880 --> 00:15:18.581 but first we need to take a

NOTE Confidence: 0.81267582

00:15:18.581 --> 00:15:20.339 short break for a medical minute.

NOTE Confidence: 0.81267582

00:15:20.340 --> 00:15:23.189 Please stay tuned to learn more about

NOTE Confidence: 0.81267582

00:15:23.189 --> 00:15:25.060 classical hematology with my guest,

NOTE Confidence: 0.81267582

00:15:25.060 --> 00:15:26.470 Doctor George Goshua.

NOTE Confidence: 0.77595533

00:15:26.960 --> 00:15:28.980 Funding for Yale Cancer Answers

NOTE Confidence: 0.77595533

00:15:28.980 --> 00:15:31.000 comes from Smilow Cancer Hospital,

NOTE Confidence: 0.77595533

00:15:31.000 --> 00:15:33.170 where their Center for Gastrointestinal

NOTE Confidence: 0.77595533

00:15:33.170 --> 00:15:34.906 Cancers provides patients with

NOTE Confidence: 0.77595533

00:15:34.906 --> 00:15:36.738 gastric cancers a comprehensive,

NOTE Confidence: 0.77595533

00:15:36.740 --> 00:15:37.880 multidisciplinary approach to

NOTE Confidence: 0.77595533

00:15:37.880 --> 00:15:39.780 the treatment of their cancer,

NOTE Confidence: 0.77595533

00:15:39.780 --> 00:15:42.540 including clinical trials.

NOTE Confidence: 0.77595533

00:15:42.540 --> 00:15:45.780 Smilowcancerhospital.org.

NOTE Confidence: 0.77595533

00:15:45.780 --> 00:15:48.085 Over 230,000 Americans will be

NOTE Confidence: 0.77595533

00:15:48.085 --> 00:15:50.840 diagnosed with lung cancer this year,

NOTE Confidence: 0.77595533

00:15:50.840 --> 00:15:52.515 and in Connecticut alone there

NOTE Confidence: 0.77595533

00:15:52.515 --> 00:15:55.092 will be over 2700 new cases.

NOTE Confidence: 0.77595533

00:15:55.092 --> 00:15:57.772 More than 85% of lung cancer

NOTE Confidence: 0.77595533

00:15:57.772 --> 00:15:59.812 diagnosis are related to smoking,

NOTE Confidence: 0.77595533

00:15:59.820 --> 00:16:02.298 and quitting even after decades of use,

NOTE Confidence: 0.77595533

00:16:02.300 --> 00:16:04.405 can significantly reduce your risk

NOTE Confidence: 0.77595533

00:16:04.405 --> 00:16:06.840 of developing lung cancer each day.

NOTE Confidence: 0.77595533

00:16:06.840 --> 00:16:09.156 Patients with lung cancer are surviving

NOTE Confidence: 0.77595533

00:16:09.156 --> 00:16:11.601 thanks to increased access to advanced

NOTE Confidence: 0.77595533

00:16:11.601 --> 00:16:13.277 therapies and specialized care.

NOTE Confidence: 0.77595533

00:16:13.280 --> 00:16:14.648 New treatment options and

NOTE Confidence: 0.77595533

00:16:14.648 --> 00:16:16.016 surgical techniques are giving

NOTE Confidence: 0.77595533

00:16:16.020 --> 00:16:17.610 lung cancer survivors more hope

NOTE Confidence: 0.77595533

00:16:17.610 --> 00:16:19.670 than they have ever had before.

NOTE Confidence: 0.77595533

00:16:19.670 --> 00:16:22.215 Clinical trials are currently underway

NOTE Confidence: 0.77595533

00:16:22.215 --> 00:16:24.251 at federally designated Comprehensive

NOTE Confidence: 0.77595533

00:16:24.251 --> 00:16:26.392 cancer centers such as the battle

NOTE Confidence: 0.77595533

00:16:26.392 --> 00:16:28.645 two trial at Yale Cancer Center and

NOTE Confidence: 0.77595533

00:16:28.645 --> 00:16:30.836 Smilow Cancer Hospital to learn if a

NOTE Confidence: 0.77595533

00:16:30.836 --> 00:16:33.210 drug or combination of drugs based

NOTE Confidence: 0.77595533

00:16:33.210 --> 00:16:35.708 on personal biomarkers can help to

NOTE Confidence: 0.77595533

00:16:35.708 --> 00:16:37.910 control non small cell lung cancer.

NOTE Confidence: 0.77595533

00:16:37.910 --> 00:16:40.294 More information is available

NOTE Confidence: 0.77595533

00:16:40.294 --> 00:16:41.311 at yalecancercenter.org.

NOTE Confidence: 0.77595533

00:16:41.311 --> 00:16:43.837 You're listening to Connecticut public radio.

NOTE Confidence: 0.831071828333333

00:16:44.740 --> 00:16:46.798 Welcome back to Yale Cancer Answers.

NOTE Confidence: 0.831071828333333

00:16:46.800 --> 00:16:48.380 This is doctor Anees Chagpar

NOTE Confidence: 0.831071828333333

00:16:48.380 --> 00:16:50.515 and I'm joined tonight by my guest,

NOTE Confidence: 0.831071828333333

00:16:50.520 --> 00:16:51.753 Doctor George Goshua.

NOTE Confidence: 0.831071828333333

00:16:51.753 --> 00:16:54.630 We're talking about the field of classical

NOTE Confidence: 0.831071828333333

00:16:54.699 --> 00:16:56.819 hematology and more specifically,

NOTE Confidence: 0.831071828333333

00:16:56.820 --> 00:16:59.440 Doctor Goshua has a special

NOTE Confidence: 0.831071828333333

00:16:59.440 --> 00:17:01.536 expertise in decision science.

NOTE Confidence: 0.831071828333333

00:17:01.540 --> 00:17:03.200 And right before the break,

NOTE Confidence: 0.831071828333333

00:17:03.200 --> 00:17:06.053 he was starting to tell us about how he

NOTE Confidence: 0.831071828333333

00:17:06.053 --> 00:17:08.718 brings decision science into the clinic.

NOTE Confidence: 0.831071828333333

00:17:08.720 --> 00:17:10.890 So George, maybe you can pick up

NOTE Confidence: 0.831071828333333

00:17:10.890 --> 00:17:12.500 the conversation where we left it.

NOTE Confidence: 0.831071828333333

00:17:12.500 --> 00:17:14.380 So as I understand

NOTE Confidence: 0.831071828333333

00:17:14.380 --> 00:17:18.545 we were talking about ITP and how there

NOTE Confidence: 0.831071828333333

00:17:18.545 --> 00:17:22.283 are three different options for treatment,

NOTE Confidence: 0.831071828333333

00:17:22.290 --> 00:17:24.678 surgical versus non surgical

NOTE Confidence: 0.831071828333333

00:17:24.678 --> 00:17:27.663 and these can be sequenced.

NOTE Confidence: 0.831071828333333

00:17:27.670 --> 00:17:30.058 We really don't have a lot

NOTE Confidence: 0.831071828333333

00:17:30.058 --> 00:17:31.650 of clinical trial data,

NOTE Confidence: 0.831071828333333

00:17:31.650 --> 00:17:34.608 but you were about to tell us kind

NOTE Confidence: 0.831071828333333

00:17:34.608 --> 00:17:37.236 of how you use decision analytics

NOTE Confidence: 0.845594269230769

00:17:37.410 --> 00:17:40.698 as we come back to this decision of

NOTE Confidence: 0.845594269230769

00:17:40.698 --> 00:17:43.350 splenectomy versus the medication options.

NOTE Confidence: 0.845594269230769

00:17:43.350 --> 00:17:45.974 We know what the data

NOTE Confidence: 0.845594269230769

00:17:45.974 --> 00:17:48.501 looks like at least observationally

NOTE Confidence: 0.845594269230769

00:17:48.501 --> 00:17:50.020 for splenectomy, right.

NOTE Confidence: 0.845594269230769

00:17:50.020 --> 00:17:51.620 We know it's risk profile.

NOTE Confidence: 0.845594269230769

00:17:51.620 --> 00:17:54.292 We know that over the last 20 years

NOTE Confidence: 0.845594269230769

00:17:54.292 --> 00:17:56.826 we've kind of moved away from it and

NOTE Confidence: 0.845594269230769

00:17:56.826 --> 00:17:59.617 I think in some ways for good reason.

NOTE Confidence: 0.845594269230769

00:17:59.620 --> 00:18:01.830 But the question then becomes

NOTE Confidence: 0.845594269230769

00:18:01.830 --> 00:18:04.040 what is that good reason,

NOTE Confidence: 0.845594269230769

00:18:04.040 --> 00:18:06.427 the good reason being that it's often

NOTE Confidence: 0.845594269230769

00:18:06.427 --> 00:18:09.019 assumed I think by us as physicians

NOTE Confidence: 0.845594269230769

00:18:09.019 --> 00:18:11.263 that our patients prefer therapies and

NOTE Confidence: 0.845594269230769

00:18:11.328 --> 00:18:13.648 therapeutics that are less invasive.

NOTE Confidence: 0.845594269230769

00:18:13.650 --> 00:18:15.290 And more often than not,

NOTE Confidence: 0.845594269230769

00:18:15.290 --> 00:18:17.414 that is correct.

NOTE Confidence: 0.845594269230769

00:18:17.414 --> 00:18:20.954 But sometimes there are circumstances

NOTE Confidence: 0.845594269230769

00:18:20.954 --> 00:18:22.682 where patients,

NOTE Confidence: 0.845594269230769

00:18:22.682 --> 00:18:23.930 their values and preferences

NOTE Confidence: 0.845594269230769

00:18:23.930 --> 00:18:25.178 of course are paramount.

NOTE Confidence: 0.845594269230769

00:18:25.180 --> 00:18:26.805 And so sometimes there are

NOTE Confidence: 0.845594269230769

00:18:26.805 --> 00:18:28.105 circumstances where you actually

NOTE Confidence: 0.845594269230769

00:18:28.105 --> 00:18:30.202 will have an individual who is

NOTE Confidence: 0.845594269230769

00:18:30.202 --> 00:18:31.578 interested in pursuing splenectomy.

NOTE Confidence: 0.845594269230769

00:18:31.580 --> 00:18:33.060 In this particular context,

NOTE Confidence: 0.845594269230769

00:18:33.060 --> 00:18:35.280 but will not because of the

NOTE Confidence: 0.845594269230769

00:18:35.347 --> 00:18:37.227 counseling that they receive.

NOTE Confidence: 0.845594269230769

00:18:37.230 --> 00:18:39.982 And so we wanted to take a very

NOTE Confidence: 0.845594269230769

00:18:39.982 --> 00:18:42.473 objective look at this and to model

NOTE Confidence: 0.845594269230769

00:18:42.473 --> 00:18:44.650 what would your life look like,

NOTE Confidence: 0.845594269230769

00:18:44.650 --> 00:18:45.272 you know,

NOTE Confidence: 0.845594269230769

00:18:45.272 --> 00:18:47.449 if you can simulate a thousands of

NOTE Confidence: 0.845594269230769

00:18:47.449 --> 00:18:49.815 times making one decision or another

NOTE Confidence: 0.845594269230769

00:18:49.815 --> 00:18:51.805 decision or yet another decision.

NOTE Confidence: 0.845594269230769

00:18:51.810 --> 00:18:53.886 And that is the beauty of

NOTE Confidence: 0.845594269230769

00:18:53.886 --> 00:18:54.924 decision analytic modeling.

NOTE Confidence: 0.845594269230769

00:18:54.930 --> 00:18:56.628 It allows us to quantify that.

NOTE Confidence: 0.845594269230769

00:18:56.630 --> 00:18:59.297 It allows us to run those simulations

NOTE Confidence: 0.845594269230769

00:18:59.297 --> 00:19:02.269 to make sure that we have addressed

NOTE Confidence: 0.845594269230769

00:19:02.270 --> 00:19:04.100 all of the concerns and so

NOTE Confidence: 0.845594269230769

00:19:04.100 --> 00:19:05.320 putting that all together,

NOTE Confidence: 0.845594269230769

00:19:05.320 --> 00:19:08.140 what we showed was that

NOTE Confidence: 0.845594269230769

00:19:08.140 --> 00:19:09.928 utilizing splenectomy early is

NOTE Confidence: 0.845594269230769

00:19:09.928 --> 00:19:12.610 absolutely fine and in fact the

NOTE Confidence: 0.845594269230769

00:19:12.683 --> 00:19:14.975 quality adjusted life years that you

NOTE Confidence: 0.845594269230769

00:19:14.975 --> 00:19:18.249 accrue if you as the patient make a

NOTE Confidence: 0.845594269230769

00:19:18.249 --> 00:19:20.339 decision to pursue splenectomy at

NOTE Confidence: 0.845594269230769

00:19:20.339 --> 00:19:22.430 least on a population level that

NOTE Confidence: 0.845594269230769

00:19:22.430 --> 00:19:25.703 is just as fine of a decision as

NOTE Confidence: 0.845594269230769

00:19:25.703 --> 00:19:27.739 pursuing the medication therapies.

NOTE Confidence: 0.845594269230769

00:19:27.740 --> 00:19:29.425 And so for those individuals

NOTE Confidence: 0.845594269230769

00:19:29.425 --> 00:19:31.110 for whom it makes sense,

NOTE Confidence: 0.845594269230769

00:19:31.110 --> 00:19:32.630 they shouldn't be dissuaded for

NOTE Confidence: 0.845594269230769

00:19:32.630 --> 00:19:34.459 pursuing a therapy that is going

NOTE Confidence: 0.845594269230769

00:19:34.459 --> 00:19:36.244 to be just as effective for them,

NOTE Confidence: 0.879992665

00:19:36.300 --> 00:19:39.858 if the two options are equivalent,

NOTE Confidence: 0.879992665

00:19:39.860 --> 00:19:41.945 patients may still be left

NOTE Confidence: 0.879992665

00:19:41.945 --> 00:19:43.613 in this decisional conundrum.

NOTE Confidence: 0.879992665

00:19:43.620 --> 00:19:46.140 And so how do you help patients with that?

NOTE Confidence: 0.858376937333333

00:19:46.700 --> 00:19:49.164 That drives back to one

NOTE Confidence: 0.858376937333333

00:19:49.164 --> 00:19:52.014 approach that my lab takes is to make

NOTE Confidence: 0.858376937333333

00:19:52.014 --> 00:19:54.217 sure that whenever we build models

NOTE Confidence: 0.858376937333333

00:19:54.217 --> 00:19:56.629 that try to approximate real life

NOTE Confidence: 0.858376937333333

00:19:56.629 --> 00:19:58.923 and that's what they are, right.

NOTE Confidence: 0.858376937333333

00:19:58.923 --> 00:20:00.367 There are only approximations.

NOTE Confidence: 0.858376937333333

00:20:00.370 --> 00:20:02.610 We always take the most

NOTE Confidence: 0.858376937333333

00:20:02.610 --> 00:20:03.506 conservative assumptions.

NOTE Confidence: 0.858376937333333

00:20:03.510 --> 00:20:05.090 And so for example,

NOTE Confidence: 0.858376937333333

00:20:05.090 --> 00:20:06.670 in that particular study,

NOTE Confidence: 0.858376937333333

00:20:06.670 --> 00:20:08.795 although we show equivalence where

NOTE Confidence: 0.858376937333333

00:20:08.795 --> 00:20:11.759 in the past the thought has been

NOTE Confidence: 0.858376937333333

00:20:11.759 --> 00:20:14.045 or the clinical practice has been

NOTE Confidence: 0.858376937333333

00:20:14.045 --> 00:20:16.569 to pursue the medication therapy.

NOTE Confidence: 0.858376937333333

00:20:16.570 --> 00:20:18.518 Although we show equivalence,

NOTE Confidence: 0.858376937333333

00:20:18.518 --> 00:20:21.440 in fact if you use assumptions

NOTE Confidence: 0.858376937333333

00:20:21.522 --> 00:20:23.470 that are more realistic,

NOTE Confidence: 0.858376937333333

00:20:23.470 --> 00:20:25.966 i.e do not downplay the benefits

NOTE Confidence: 0.858376937333333

00:20:25.966 --> 00:20:28.641 of splenectomy and do not over

NOTE Confidence: 0.858376937333333

00:20:28.641 --> 00:20:31.080 exaggerate the risks, which is what

NOTE Confidence: 0.858376937333333

00:20:31.080 --> 00:20:32.830 we did in this model,

NOTE Confidence: 0.858376937333333

00:20:32.830 --> 00:20:35.680 then you'll find that the splenectomy

NOTE Confidence: 0.858376937333333

00:20:35.680 --> 00:20:38.803 option becomes a little bit more

NOTE Confidence: 0.858376937333333

00:20:38.803 --> 00:20:41.087 favorable in certain circumstances.

NOTE Confidence: 0.858376937333333

00:20:41.090 --> 00:20:43.220 But separate from that because we're

NOTE Confidence: 0.858376937333333

00:20:43.220 --> 00:20:45.384 talking on a population level and

NOTE Confidence: 0.858376937333333

00:20:45.384 --> 00:20:47.424 the really exciting bit is that

NOTE Confidence: 0.858376937333333

00:20:47.430 --> 00:20:49.446 we can take that and then we

NOTE Confidence: 0.858376937333333

00:20:49.446 --> 00:20:50.597 can personalize it, right?

NOTE Confidence: 0.858376937333333

00:20:50.597 --> 00:20:52.606 Because this is on a population level,

NOTE Confidence: 0.858376937333333

00:20:52.610 --> 00:20:54.118 this is all comers.

NOTE Confidence: 0.858376937333333

00:20:54.118 --> 00:20:56.910 If you're a 30 year old woman

NOTE Confidence: 0.858376937333333

00:20:56.910 --> 00:20:59.110 versus if you're a 55 year old man,

NOTE Confidence: 0.858376937333333

00:20:59.110 --> 00:21:01.520 there's a very real difference

NOTE Confidence: 0.858376937333333

00:21:01.520 --> 00:21:02.940 in your actual responses,

NOTE Confidence: 0.858376937333333

00:21:02.940 --> 00:21:05.525 a 30 year old woman will have

NOTE Confidence: 0.858376937333333

00:21:05.525 --> 00:21:07.057 a much better outcome,

NOTE Confidence: 0.858376937333333

00:21:07.060 --> 00:21:08.852 typically with splenectomy than

NOTE Confidence: 0.858376937333333

00:21:08.852 --> 00:21:11.328 a 55 year old man as compared

NOTE Confidence: 0.858376937333333

00:21:11.328 --> 00:21:12.680 to the medication therapies.

NOTE Confidence: 0.858376937333333

00:21:12.680 --> 00:21:15.500 And so the next steps for

NOTE Confidence: 0.858376937333333

00:21:15.500 --> 00:21:17.380 that particular question are

NOTE Confidence: 0.858376937333333

00:21:17.467 --> 00:21:19.727 to personalize and

NOTE Confidence: 0.858376937333333

00:21:19.730 --> 00:21:20.930 not just to see,

NOTE Confidence: 0.858376937333333

00:21:20.930 --> 00:21:22.730 but to actually give an opportunity

NOTE Confidence: 0.858376937333333

00:21:22.791 --> 00:21:24.347 for physicians right through

NOTE Confidence: 0.858376937333333

00:21:24.347 --> 00:21:25.903 an easy visual interface,

NOTE Confidence: 0.858376937333333

00:21:25.910 --> 00:21:27.680 essentially where they can plug

NOTE Confidence: 0.858376937333333

00:21:27.680 --> 00:21:29.450 in the parameters of importance

NOTE Confidence: 0.858376937333333

00:21:29.511 --> 00:21:31.197 like age and gender and other

NOTE Confidence: 0.858376937333333

00:21:31.197 --> 00:21:33.223 diseases that may be at play that

NOTE Confidence: 0.858376937333333

00:21:33.223 --> 00:21:34.628 we know affect these risks.

NOTE Confidence: 0.858376937333333

00:21:34.630 --> 00:21:36.604 To then in their clinic calculate

NOTE Confidence: 0.858376937333333

00:21:36.604 --> 00:21:38.298 and simulate what actually

NOTE Confidence: 0.858376937333333

00:21:38.298 --> 00:21:40.200 happened the vast majority of the

NOTE Confidence: 0.858376937333333

00:21:40.200 --> 00:21:42.483 time and to be able to provide

NOTE Confidence: 0.858376937333333

00:21:42.483 --> 00:21:44.068 those estimates to patients so

NOTE Confidence: 0.858376937333333

00:21:44.068 --> 00:21:45.350 they can make a decision that

NOTE Confidence: 0.858376937333333

00:21:45.350 --> 00:21:46.550 makes the most sense for them.

NOTE Confidence: 0.906339695

00:21:48.420 --> 00:21:51.198 And that sounds,

NOTE Confidence: 0.906339695

00:21:51.200 --> 00:21:54.146 you know, really quite wonderful if

NOTE Confidence: 0.906339695

00:21:54.146 --> 00:21:57.260 you're able to take all of the data,

NOTE Confidence: 0.906339695

00:21:57.260 --> 00:22:00.116 put it into an analytic model that can

NOTE Confidence: 0.906339695

00:22:00.116 --> 00:22:02.418 be personalized so that people can say,

NOTE Confidence: 0.906339695

00:22:02.420 --> 00:22:05.669 OK, tell me what's best for me and you

NOTE Confidence: 0.906339695

00:22:05.669 --> 00:22:08.780 can put in all of those parameters.

NOTE Confidence: 0.906339695

00:22:08.780 --> 00:22:10.960 That sounds really quite wonderful.

NOTE Confidence: 0.906339695

00:22:10.960 --> 00:22:15.298 Has that found its way into the clinic in

NOTE Confidence: 0.906339695

00:22:15.298 --> 00:22:19.672 hematology specifically, but then if it

NOTE Confidence: 0.906339695

00:22:19.672 --> 00:22:22.856 has, where are we going in terms of taking

NOTE Confidence: 0.906339695

00:22:22.856 --> 00:22:25.456 that into the clinic for many, many,

NOTE Confidence: 0.906339695

00:22:25.456 --> 00:22:28.732 many other diseases where patients still

NOTE Confidence: 0.906339695

00:22:28.732 --> 00:22:31.474 struggle with well, what should I do?

NOTE Confidence: 0.906339695

00:22:31.474 --> 00:22:33.410 Should I, if I have breast cancer,

NOTE Confidence: 0.906339695

00:22:33.410 --> 00:22:35.530 should I have a lumpectomy?

NOTE Confidence: 0.906339695

00:22:35.530 --> 00:22:36.950 Should I have a mastectomy,

NOTE Confidence: 0.906339695

00:22:36.950 --> 00:22:38.630 should I do one side,

NOTE Confidence: 0.906339695

00:22:38.630 --> 00:22:39.690 should I do both sides?

NOTE Confidence: 0.906339695

00:22:39.690 --> 00:22:43.389 I mean I can see where this kind of

NOTE Confidence: 0.906339695

00:22:43.389 --> 00:22:46.700 modeling would be helpful across diseases.

NOTE Confidence: 0.920919716

00:22:48.240 --> 00:22:51.180 Yes. And it has been utilized

NOTE Confidence: 0.920919716

00:22:51.180 --> 00:22:53.568 in other disease areas not

NOTE Confidence: 0.920919716

00:22:53.568 --> 00:22:55.280 yet in classical hematology,

NOTE Confidence: 0.920919716

00:22:55.280 --> 00:22:57.002 but I'm really glad you brought

NOTE Confidence: 0.920919716

00:22:57.002 --> 00:22:59.039 up the example of breast cancer.

NOTE Confidence: 0.920919716

00:22:59.040 --> 00:23:00.832 The United States Preventative

NOTE Confidence: 0.920919716

00:23:00.832 --> 00:23:02.176 Services Task Force,

NOTE Confidence: 0.920919716

00:23:02.180 --> 00:23:03.824 their recommendation is actually

NOTE Confidence: 0.920919716

00:23:03.824 --> 00:23:05.879 based on micro simulation modeling,

NOTE Confidence: 0.920919716

00:23:05.880 --> 00:23:08.118 which is a different kind of

NOTE Confidence: 0.920919716

00:23:08.118 --> 00:23:09.640 decision analytic modeling for

NOTE Confidence: 0.920919716

00:23:09.640 --> 00:23:11.240 patients with breast cancer.

NOTE Confidence: 0.920919716

00:23:11.240 --> 00:23:13.224 Micro simulations have also

NOTE Confidence: 0.920919716

00:23:13.224 --> 00:23:15.496 been employed to inform the care

NOTE Confidence: 0.920919716

00:23:15.496 --> 00:23:17.091 of patients with lung cancer

NOTE Confidence: 0.920919716

00:23:17.091 --> 00:23:18.848 and lung cancer screening.

NOTE Confidence: 0.920919716

00:23:18.850 --> 00:23:20.926 So there's a very real opportunity

NOTE Confidence: 0.920919716

00:23:20.926 --> 00:23:23.693 here to be able to apply to a

NOTE Confidence: 0.920919716

00:23:23.693 --> 00:23:25.649 field where we have diseases that

NOTE Confidence: 0.920919716

00:23:25.650 --> 00:23:28.614 are also rare and also quite

NOTE Confidence: 0.920919716

00:23:28.614 --> 00:23:30.590 consequential for our patients.

NOTE Confidence: 0.920919716

00:23:30.590 --> 00:23:32.886 And that's the exciting part of it too.

NOTE Confidence: 0.920919716

00:23:32.890 --> 00:23:34.865 And the exciting bit specifically

NOTE Confidence: 0.920919716

00:23:34.865 --> 00:23:36.445 is the fact that

NOTE Confidence: 0.920919716

00:23:36.450 --> 00:23:38.590 the decision science methodologists

NOTE Confidence: 0.893504441666667

00:23:40.660 --> 00:23:43.537 have been pushing that field forward for

NOTE Confidence: 0.893504441666667

00:23:43.537 --> 00:23:46.583 many decades now and the opportunity to

NOTE Confidence: 0.893504441666667

00:23:46.583 --> 00:23:49.181 then take the clinical knowledge that

NOTE Confidence: 0.893504441666667

00:23:49.258 --> 00:23:51.208 that we've accumulated as physicians

NOTE Confidence: 0.893504441666667

00:23:51.208 --> 00:23:54.464 and to be able to try and fuse those

NOTE Confidence: 0.893504441666667

00:23:54.464 --> 00:23:56.777 areas of expertise that is what drove

NOTE Confidence: 0.893504441666667

00:23:56.777 --> 00:23:59.073 me to this point because it gives me

NOTE Confidence: 0.893504441666667

00:23:59.073 --> 00:24:01.738 a unique opportunity to work with some

NOTE Confidence: 0.893504441666667

00:24:01.738 --> 00:24:03.848 of the brightest minds and decision

NOTE Confidence: 0.893504441666667

00:24:03.848 --> 00:24:05.552 science and some of the brightest

NOTE Confidence: 0.893504441666667

00:24:05.552 --> 00:24:08.014 minds in clinical medicine to try and

NOTE Confidence: 0.893504441666667

00:24:08.014 --> 00:24:09.286 conceptualize these problems and

NOTE Confidence: 0.893504441666667

00:24:09.290 --> 00:24:11.906 capture them in a way that actually can

NOTE Confidence: 0.893504441666667

00:24:11.906 --> 00:24:14.598 inform one health policy and then second,

NOTE Confidence: 0.893504441666667

00:24:14.600 --> 00:24:16.124 individualized treatment decisions

NOTE Confidence: 0.893504441666667

00:24:16.124 --> 00:24:17.140 for patients.

NOTE Confidence: 0.891656825714286

00:24:18.580 --> 00:24:20.638 So a couple of questions on that.

NOTE Confidence: 0.891656825714286

00:24:20.640 --> 00:24:22.950 So the first question is why hasn't

NOTE Confidence: 0.891656825714286

00:24:22.950 --> 00:24:25.492 it found its way into clinical

NOTE Confidence: 0.891656825714286

00:24:25.492 --> 00:24:27.460 practice in clinical hematology?

NOTE Confidence: 0.891656825714286

00:24:27.460 --> 00:24:29.724 I mean, at the outset you made a

NOTE Confidence: 0.891656825714286

00:24:29.724 --> 00:24:32.249 very nice case for using decision

NOTE Confidence: 0.891656825714286

00:24:32.249 --> 00:24:34.137 science in classical hematology,

NOTE Confidence: 0.891656825714286

00:24:34.140 --> 00:24:37.402 that being that we don't have large

NOTE Confidence: 0.891656825714286

00:24:37.402 --> 00:24:39.878 randomized control trials for what are,

NOTE Confidence: 0.891656825714286

00:24:39.880 --> 00:24:42.540 you know, often rare diseases,

NOTE Confidence: 0.891656825714286

00:24:42.540 --> 00:24:45.177 one would think that this would be an ideal

NOTE Confidence: 0.891656825714286

00:24:45.177 --> 00:24:47.158 platform for the classical hematology.

NOTE Confidence: 0.891656825714286

00:24:47.160 --> 00:24:48.312 So why hasn't it

NOTE Confidence: 0.891656825714286

00:24:48.312 --> 00:24:50.310 found its way into clinical practice yet?

NOTE Confidence: 0.821558426

00:24:51.800 --> 00:24:55.760 I think 2 reasons, probably one

NOTE Confidence: 0.821558426

00:24:55.760 --> 00:24:58.400 decision science methodologically is,

NOTE Confidence: 0.821558426

00:24:58.400 --> 00:25:00.308 I've been told a few times, one of

NOTE Confidence: 0.821558426

00:25:00.308 --> 00:25:03.970 the most niche, if not the most niche,

NOTE Confidence: 0.821558426

00:25:03.970 --> 00:25:08.082 area speaking methodologically,

NOTE Confidence: 0.821558426

00:25:08.082 --> 00:25:11.519 there's just not a lot of decision

NOTE Confidence: 0.821558426

00:25:11.519 --> 00:25:13.179 scientists in this country.

NOTE Confidence: 0.821558426

00:25:13.180 --> 00:25:14.899 There's a little bit of a hub on the

NOTE Confidence: 0.821558426

00:25:14.899 --> 00:25:16.638 West Coast, a little bit in the Midwest,

NOTE Confidence: 0.821558426

00:25:16.640 --> 00:25:18.818 and one here in the Northeast.

NOTE Confidence: 0.821558426

00:25:18.820 --> 00:25:20.998 And that's kind of mostly it.

NOTE Confidence: 0.821558426

00:25:21.000 --> 00:25:26.320 And all of them are at the very least,

NOTE Confidence: 0.821558426

00:25:26.320 --> 00:25:30.774 of course Doctors of philosophy.

NOTE Confidence: 0.821558426

00:25:30.774 --> 00:25:33.374 So PHD's, but MD's and MD,

NOTE Confidence: 0.821558426

00:25:33.374 --> 00:25:35.450 PhDs and MD's who do decision

NOTE Confidence: 0.821558426

00:25:35.532 --> 00:25:38.164 science are far and few in between.

NOTE Confidence: 0.821558426

00:25:38.170 --> 00:25:39.890 In the United States specifically,

NOTE Confidence: 0.821558426

00:25:39.890 --> 00:25:41.660 this is different in Europe

NOTE Confidence: 0.821558426

00:25:41.660 --> 00:25:43.076 and different in Canada.

NOTE Confidence: 0.821558426

00:25:43.080 --> 00:25:45.588 And that ties into point #2,

NOTE Confidence: 0.821558426

00:25:45.590 --> 00:25:47.498 which is that

NOTE Confidence: 0.821558426

00:25:47.500 --> 00:25:49.232 in general, you know,

NOTE Confidence: 0.821558426

00:25:49.232 --> 00:25:50.964 the decision science umbrella

NOTE Confidence: 0.821558426

00:25:50.964 --> 00:25:53.249 includes so many different aspects

NOTE Confidence: 0.821558426

00:25:53.249 --> 00:25:55.484 where you can do simulations,

NOTE Confidence: 0.821558426

00:25:55.490 --> 00:25:56.870 where you can weigh decisions.

NOTE Confidence: 0.821558426

00:25:56.870 --> 00:25:58.736 But if you want to completely

NOTE Confidence: 0.821558426

00:25:58.736 --> 00:25:59.669 separate from that,

NOTE Confidence: 0.821558426

00:25:59.670 --> 00:26:02.526 you can also layer in costs.

NOTE Confidence: 0.821558426

00:26:02.530 --> 00:26:06.096 And I think that is especially here

NOTE Confidence: 0.821558426

00:26:06.096 --> 00:26:09.000 in the United States when you start to

NOTE Confidence: 0.821558426

00:26:09.068 --> 00:26:11.690 talk about those two concepts together,

NOTE Confidence: 0.821558426

00:26:11.690 --> 00:26:14.350 costs and effectiveness, right?

NOTE Confidence: 0.821558426

00:26:14.350 --> 00:26:16.345 So cost effectiveness,

NOTE Confidence: 0.821558426

00:26:16.350 --> 00:26:17.618 especially during

NOTE Confidence: 0.821558426

00:26:17.618 --> 00:26:20.788 the period here in the

NOTE Confidence: 0.821558426

00:26:20.790 --> 00:26:23.359 Mid 2000s and the early twenty 10s

NOTE Confidence: 0.821558426

00:26:23.359 --> 00:26:25.793 with the Affordable Care Act and

NOTE Confidence: 0.821558426

00:26:25.793 --> 00:26:27.898 this conversation about who makes

NOTE Confidence: 0.821558426

00:26:27.898 --> 00:26:29.969 decisions about your health care,

NOTE Confidence: 0.821558426

00:26:29.970 --> 00:26:32.328 who makes decisions about how much

NOTE Confidence: 0.821558426

00:26:32.328 --> 00:26:34.709 is too expensive to pay right.

NOTE Confidence: 0.821558426

00:26:34.710 --> 00:26:38.376 These are discussions that in some

NOTE Confidence: 0.821558426

00:26:38.376 --> 00:26:42.509 ways shaped and morphed the discussion

NOTE Confidence: 0.84159787375

00:26:44.840 --> 00:26:47.430 unwillingly in a way about

NOTE Confidence: 0.84159787375

00:26:47.430 --> 00:26:48.984 about decision analytics,

NOTE Confidence: 0.84159787375

00:26:48.990 --> 00:26:52.245 but we're in a period where now

NOTE Confidence: 0.84159787375

00:26:52.250 --> 00:26:56.726 our President has signed into law

NOTE Confidence: 0.84159787375

00:26:56.730 --> 00:27:01.050 an act that will go forward

NOTE Confidence: 0.84159787375

00:27:01.050 --> 00:27:04.264 in 2026 and give CMS an opportunity

NOTE Confidence: 0.84159787375

00:27:04.264 --> 00:27:06.770 to start negotiating drug prices.

NOTE Confidence: 0.84159787375

00:27:06.770 --> 00:27:09.002 So I think reason #2 has to do

NOTE Confidence: 0.84159787375

00:27:09.002 --> 00:27:11.243 with this thorny issue of costs

NOTE Confidence: 0.84159787375

00:27:11.243 --> 00:27:13.258 and who makes those decisions.

NOTE Confidence: 0.84159787375

00:27:13.260 --> 00:27:14.817 The reality is, at the end of the day,

NOTE Confidence: 0.84159787375

00:27:14.820 --> 00:27:16.164 cost also matters, right?

NOTE Confidence: 0.84159787375

00:27:16.164 --> 00:27:19.517 And we need to be able to account for it.

NOTE Confidence: 0.84159787375

00:27:19.520 --> 00:27:21.896 Now, whether we make decisions on it or not,

NOTE Confidence: 0.84159787375

00:27:21.900 --> 00:27:23.210 it's totally up to us.

NOTE Confidence: 0.851627563181818

00:27:25.180 --> 00:27:28.288 I mean, one would think that

NOTE Confidence: 0.851627563181818

00:27:28.288 --> 00:27:30.827 decision analytics plays such a key

NOTE Confidence: 0.851627563181818

00:27:30.827 --> 00:27:33.083 role in terms of actually grounding

NOTE Confidence: 0.851627563181818

00:27:33.083 --> 00:27:37.280 the cost decision in data and on risks

NOTE Confidence: 0.851627563181818

00:27:37.280 --> 00:27:41.060 at each decision point along the way.

NOTE Confidence: 0.851627563181818

00:27:41.060 --> 00:27:43.220 You mentioned that you're interested

NOTE Confidence: 0.851627563181818

00:27:43.220 --> 00:27:45.839 in public policy and using decision

NOTE Confidence: 0.851627563181818

00:27:45.839 --> 00:27:48.179 analytics to guide public policy and

NOTE Confidence: 0.851627563181818

00:27:48.179 --> 00:27:51.139 at the same time individualized care.

NOTE Confidence: 0.851627563181818

00:27:51.140 --> 00:27:53.700 Can you talk a little bit in our

NOTE Confidence: 0.851627563181818

00:27:53.700 --> 00:27:55.867 last minute about how those two

NOTE Confidence: 0.851627563181818

00:27:55.870 --> 00:27:58.669 are either at odds or how they come together?

NOTE Confidence: 0.7821816525

00:27:59.750 --> 00:28:01.864 Well, I think they can fuse beautifully

NOTE Confidence: 0.7821816525

00:28:01.864 --> 00:28:03.050 together, but methodologically

NOTE Confidence: 0.7821816525

00:28:03.050 --> 00:28:05.250 they need to stay separate.

NOTE Confidence: 0.7821816525

00:28:05.250 --> 00:28:08.298 There are definitely ways that we can help

NOTE Confidence: 0.7821816525

00:28:08.298 --> 00:28:10.110 individuals personalize their treatments.

NOTE Confidence: 0.7821816525

00:28:10.110 --> 00:28:11.930 And one of the avenues that we're

NOTE Confidence: 0.7821816525

00:28:11.930 --> 00:28:13.716 going to expand out into is looking

NOTE Confidence: 0.7821816525

00:28:13.716 --> 00:28:15.790 at out of pocket costs in this realm,

NOTE Confidence: 0.7821816525

00:28:15.790 --> 00:28:18.580 which hasn't really been done a lot at all.

NOTE Confidence: 0.7821816525

00:28:18.580 --> 00:28:20.270 And then separate from that,

NOTE Confidence: 0.7821816525

00:28:20.270 --> 00:28:23.147 keep the health system policy issues separate

NOTE Confidence: 0.7821816525

00:28:23.147 --> 00:28:25.628 and the stakeholders are very different.

NOTE Confidence: 0.7821816525

00:28:25.630 --> 00:28:27.446 So you need to be able to cater

NOTE Confidence: 0.7821816525

00:28:27.446 --> 00:28:28.685 to those specific stakeholders

NOTE Confidence: 0.7821816525

00:28:28.685 --> 00:28:30.857 and I think we're

NOTE Confidence: 0.7821816525

00:28:30.860 --> 00:28:31.838 going to be able to do both.

NOTE Confidence: 0.888044519444445

00:28:31.850 --> 00:28:34.394 Doctor George Goshua is an

NOTE Confidence: 0.888044519444445

00:28:34.394 --> 00:28:36.530 assistant professor of medicine in

NOTE Confidence: 0.888044519444445

00:28:36.530 --> 00:28:39.134 hematology at the Yale School of Medicine.

NOTE Confidence: 0.888044519444445

00:28:39.140 --> 00:28:41.196 If you have questions,

NOTE Confidence: 0.888044519444445

00:28:41.196 --> 00:28:43.197 the address is canceranswers@yale.edu,

NOTE Confidence: 0.888044519444445

00:28:43.197 --> 00:28:45.939 and past editions of the program

NOTE Confidence: 0.888044519444445

00:28:45.939 --> 00:28:48.313 are available in audio and written

NOTE Confidence: 0.888044519444445

00:28:48.313 --> 00:28:49.238 form at yalecancercenter.org.

NOTE Confidence: 0.888044519444445

00:28:49.238 --> 00:28:51.622 We hope you'll join us next week to

NOTE Confidence: 0.888044519444445

00:28:51.622 --> 00:28:53.437 learn more about the fight against

NOTE Confidence: 0.888044519444445

00:28:53.437 --> 00:28:55.240 cancer here on Connecticut Public Radio.

NOTE Confidence: 0.888044519444445

00:28:55.240 --> 00:28:57.688 Funding for Yale Cancer Answers is

NOTE Confidence: 0.888044519444445

00:28:57.688 --> 00:29:00.000 provided by Smilow Cancer Hospital.