WEBVTT

NOTE duration:"00:57:04.5760000"

NOTE language:en-us

NOTE Confidence: 0.78028923

00:00:00.000 --> 00:00:02.548 To this week's character center Grand rounds,

NOTE Confidence: 0.78028923

00:00:02.550 --> 00:00:04.330 we have two speakers today,

NOTE Confidence: 0.78028923

00:00:04.330 --> 00:00:06.550 both from Yale will give us

NOTE Confidence: 0.78028923

00:00:06.550 --> 00:00:08.434 some exciting discussion of some

NOTE Confidence: 0.78028923

00:00:08.434 --> 00:00:10.396 of the work we're doing here.

NOTE Confidence: 0.78028923

00:00:10.400 --> 00:00:12.899 Our first speaker is Mario Strozza busco.

NOTE Confidence: 0.78028923

00:00:12.900 --> 00:00:15.046 He's a professor of medicine, director

NOTE Confidence: 0.78028923

00:00:15.046 --> 00:00:17.894 of the liver Cancer program here in Co.

NOTE Confidence: 0.78028923

00:00:17.900 --> 00:00:20.470 Director of the liver center.

NOTE Confidence: 0.78028923

00:00:20.470 --> 00:00:22.395 He received his medical and PhD degrees

NOTE Confidence: 0.78028923

00:00:22.395 --> 00:00:24.840 in Italy and then had a number of

NOTE Confidence: 0.78028923

00:00:24.840 --> 00:00:26.400 leadership positions at the University

NOTE Confidence: 0.78028923

00:00:26.461 --> 00:00:28.369 of Milan before joining our faculty.

NOTE Confidence: 0.78028923

00:00:28.370 --> 00:00:30.351 He's an expert on the care of

NOTE Confidence: 0.78028923

00:00:30.351 --> 00:00:31.670 patients with liver cancer,

NOTE Confidence: 0.78028923

00:00:31.670 --> 00:00:32.870 is internationally known for

NOTE Confidence: 0.78028923

00:00:32.870 --> 00:00:34.070 his work and hepatology.

NOTE Confidence: 0.78028923

00:00:34.070 --> 00:00:35.885 Liver transplantation is a member

NOTE Confidence: 0.78028923

00:00:35.885 --> 00:00:37.337 of several scientific societies

NOTE Confidence: 0.78028923

00:00:37.337 --> 00:00:39.257 in Europe in the United States.

NOTE Confidence: 0.78028923

00:00:39.260 --> 00:00:41.275 His current research relates to

NOTE Confidence: 0.78028923

00:00:41.275 --> 00:00:42.887 the pathophysiology of biliary

NOTE Confidence: 0.78028923

00:00:42.887 --> 00:00:44.538 tract disease is repaired.

NOTE Confidence: 0.78028923

00:00:44.540 --> 00:00:46.160 Biology of liver repair,

NOTE Confidence: 0.78028923

00:00:46.160 --> 00:00:46.970 liver transplantation,

NOTE Confidence: 0.78028923

00:00:46.970 --> 00:00:49.000 liver cancer in healthcare management,

NOTE Confidence: 0.78028923

00:00:49.000 --> 00:00:52.208 and so today we're going to hear from

NOTE Confidence: 0.78028923

00:00:52.208 --> 00:00:55.909 Mario and tell of his talk is liver cancer,

NOTE Confidence: 0.78028923

00:00:55.910 --> 00:00:58.340 clinical care and research at Yale.

NOTE Confidence: 0.78028923

00:00:58.340 --> 00:00:59.558 So Mario, you're

NOTE Confidence: 0.79450005

00:00:59.560 --> 00:01:01.991 up. Thank you very much, Dan,

NOTE Confidence: 0.79450005

00:01:01.991 --> 00:01:04.798 for the introduction and thanks for the

NOTE Confidence: 0.79450005

00:01:04.798 --> 00:01:07.269 Cancer Center for the Invitation Ann.

NOTE Confidence: 0.79450005

00:01:07.270 --> 00:01:11.827 And thanks a lot for this Milo.

NOTE Confidence: 0.79450005

00:01:11.830 --> 00:01:15.378 Cancel. After the program has

NOTE Confidence: 0.79450005

00:01:15.378 --> 00:01:17.086 received during this year,

NOTE Confidence: 0.79450005

00:01:17.090 --> 00:01:20.090 I'm really only as a as a spokesperson

NOTE Confidence: 0.79450005

00:01:20.090 --> 00:01:23.516 for for a group of colleagues that are

NOTE Confidence: 0.79450005

00:01:23.516 --> 00:01:26.735 interested in India in the in liver

NOTE Confidence: 0.79450005

00:01:26.735 --> 00:01:29.080 cancer and treating liver cancer.

NOTE Confidence: 0.79450005

00:01:29.080 --> 00:01:31.220 So I'm just the messenger.

NOTE Confidence: 0.79450005

00:01:31.220 --> 00:01:34.620 So what do we do in the liver

NOTE Confidence: 0.79450005

00:01:34.620 --> 00:01:36.350 cancer program we take?

NOTE Confidence: 0.79450005

00:01:36.350 --> 00:01:39.297 We take care of patients with liver

NOTE Confidence: 0.79450005

00:01:39.297 --> 00:01:41.918 masses either benign or malignant are,

NOTE Confidence: 0.79450005

00:01:41.920 --> 00:01:44.180 and the two most frequent.

NOTE Confidence: 0.79450005

00:01:44.180 --> 00:01:48.500 Primary liver cancer are able to sell cash.

NOTE Confidence: 0.79450005

00:01:48.500 --> 00:01:52.819 You know my also called HTC and

NOTE Confidence: 0.79450005

00:01:52.819 --> 00:01:55.660 Intraparticle Angela carcinoma and I

NOTE Confidence: 0.79450005

00:01:55.660 --> 00:01:58.754 focus my talk today mostly on ATC,

NOTE Confidence: 0.79450005

00:01:58.760 --> 00:02:03.818 which is the most important primary.

NOTE Confidence: 0.79450005

00:02:03.820 --> 00:02:05.464 Cancer of the liver.

NOTE Confidence: 0.79450005

00:02:05.464 --> 00:02:08.519 The liver is is an organ which

NOTE Confidence: 0.79450005

00:02:08.519 --> 00:02:10.959 is located in the abdomen,

NOTE Confidence: 0.79450005

00:02:10.960 --> 00:02:13.190 but really here it is.

NOTE Confidence: 0.79450005

00:02:13.190 --> 00:02:16.305 The main regulator of the whole body,

NOTE Confidence: 0.79450005

00:02:16.310 --> 00:02:17.597 metabolic coma stasis,

NOTE Confidence: 0.79450005

00:02:17.597 --> 00:02:21.659 and in fact if the liver fails we actually,

NOTE Confidence: 0.79450005

00:02:21.660 --> 00:02:23.890 the patient suffered of a

NOTE Confidence: 0.79450005

00:02:23.890 --> 00:02:26.120 syndrome which is very bad.

NOTE Confidence: 0.79450005

00:02:26.120 --> 00:02:27.900 Absolutely Poly systemic syndrome.

NOTE Confidence: 0.79450005

00:02:27.900 --> 00:02:30.125 As you can see here.

NOTE Confidence: 0.79450005

00:02:30.130 --> 00:02:32.022 And the important thing

NOTE Confidence: 0.79450005

00:02:32.022 --> 00:02:34.387 to understand is that 85%.

NOTE Confidence: 0.79450005

00:02:34.390 --> 00:02:38.179 90% of the patient with able to sell casino.

NOTE Confidence: 0.79450005

00:02:38.180 --> 00:02:40.240 They are also cirrhotic in

NOTE Confidence: 0.79450005

00:02:40.240 --> 00:02:42.810 the liver and not only that,

NOTE Confidence: 0.79450005

00:02:42.810 --> 00:02:46.010 but if we follow a cohort of patients

NOTE Confidence: 0.79450005

00:02:46.010 --> 00:02:48.194 with viral induced liver disease

NOTE Confidence: 0.79450005

00:02:48.194 --> 00:02:51.225 either B or C for enough time,

NOTE Confidence: 0.79450005

00:02:51.230 --> 00:02:54.506 we see that the main the.

NOTE Confidence: 0.79450005

00:02:54.510 --> 00:02:55.785 When they die,

NOTE Confidence: 0.79450005

00:02:55.785 --> 00:02:59.875 most of them they died with the in a

NOTE Confidence: 0.79450005

00:02:59.875 --> 00:03:02.923 particular casting armor as shown here.

NOTE Confidence: 0.79450005

00:03:02.930 --> 00:03:05.968 So why what the about the circus

NOTE Confidence: 0.79450005

00:03:05.968 --> 00:03:08.358 number is actually only rise

NOTE Confidence: 0.79450005

00:03:08.358 --> 00:03:11.358 worldwide and the estimate are there.

NOTE Confidence: 0.79450005

00:03:11.360 --> 00:03:14.629 There are 830,000 cases recorded every year,

NOTE Confidence: 0.79450005

00:03:14.630 --> 00:03:16.970 with the mortality that almost

NOTE Confidence: 0.79450005

00:03:16.970 --> 00:03:18.374 approached the incidents.

NOTE Confidence: 0.79450005

00:03:18.380 --> 00:03:22.079 And why is that? Well, this is the.

NOTE Confidence: 0.79450005

00:03:22.079 --> 00:03:25.917 A result of a number of worldwide the

NOTE Confidence: 0.79450005

00:03:25.917 --> 00:03:29.289 epidemics that are also risk factor

NOTE Confidence: 0.79450005

00:03:29.289 --> 00:03:32.702 for chronic liver disease and among

NOTE Confidence: 0.79450005

00:03:32.702 --> 00:03:37.042 them we can mention viral appetite is B&C.

NOTE Confidence: 0.79450005

00:03:37.042 --> 00:03:40.294 You see that they the infection

NOTE Confidence: 0.79450005

00:03:40.294 --> 00:03:43.028 from viral potatis is hundreds

NOTE Confidence: 0.79450005

00:03:43.028 --> 00:03:46.549 of millions of people I call is

NOTE Confidence: 0.79450005

00:03:46.549 --> 00:03:49.318 another important work by the.

NOTE Confidence: 0.79450005

00:03:49.320 --> 00:03:52.015 What is factor as it is obesity,

NOTE Confidence: 0.79450005

00:03:52.020 --> 00:03:52.646 diabetes?

NOTE Confidence: 0.79450005

00:03:52.646 --> 00:03:55.150 And more and more,

NOTE Confidence: 0.79450005

00:03:55.150 --> 00:03:58.104 we realize that if 50 important risk

NOTE Confidence: 0.79450005

00:03:58.104 --> 00:04:01.716 factor is due to inequality's an patient

NOTE Confidence: 0.79450005

00:04:01.716 --> 00:04:04.541 population that are underserved and

NOTE Confidence: 0.79450005

00:04:04.541 --> 00:04:07.190 they have difficulties in reaching

NOTE Confidence: 0.79450005

00:04:07.190 --> 00:04:10.694 and being reached by the best care,

NOTE Confidence: 0.79450005

00:04:10.694 --> 00:04:12.236 other risk factors,

NOTE Confidence: 0.79450005

00:04:12.236 --> 00:04:16.698 smoking alpha toxin and and an other as well.

NOTE Confidence: 0.79450005

00:04:16.700 --> 00:04:20.039 And this is important to understand that

NOTE Confidence: 0.79450005

00:04:20.039 --> 00:04:23.338 the combination of risk factor increases.

NOTE Confidence: 0.79450005

00:04:23.340 --> 00:04:24.184 And actually the risk.

NOTE Confidence: 0.79450005

00:04:24.184 --> 00:04:25.670 So in every patient that we see,

NOTE Confidence: 0.79450005

00:04:25.670 --> 00:04:27.366 we need to look for all of them.

NOTE Confidence: 0.79554164

00:04:33.060 --> 00:04:36.865 This risk factor are distributed

NOTE Confidence: 0.79554164

00:04:36.865 --> 00:04:40.670 unequally in the world wide.

NOTE Confidence: 0.79554164

00:04:40.670 --> 00:04:42.722 For example, aflatoxin is more frequent

NOTE Confidence: 0.79554164

00:04:42.722 --> 00:04:45.779 as it goes in in the African continent,

NOTE Confidence: 0.79554164

00:04:45.780 --> 00:04:49.070 but if we go to the US, All told,

NOTE Confidence: 0.79554164

00:04:49.070 --> 00:04:51.990 this publication shows Nash is a main factor.

NOTE Confidence: 0.79554164

00:04:51.990 --> 00:04:54.419 It is actually we have all the

NOTE Confidence: 0.79554164

00:04:54.419 --> 00:04:56.291 respect or combining here because

NOTE Confidence: 0.79554164

00:04:56.291 --> 00:04:58.186 we have Nash with alcohol,

NOTE Confidence: 0.79554164

00:04:58.190 --> 00:05:00.020 we have appetite is C.

NOTE Confidence: 0.79554164

00:05:00.020 --> 00:05:02.210 And so on. And in fact,

NOTE Confidence: 0.79554164

00:05:02.210 --> 00:05:05.710 if we look at the distribution of

NOTE Confidence: 0.79554164

00:05:05.710 --> 00:05:08.710 the incidents of ATC in the US.

NOTE Confidence: 0.79554164

00:05:08.710 --> 00:05:12.700 We see that is actually particularly

NOTE Confidence: 0.79554164

00:05:12.700 --> 00:05:19.248 hygge about 8. Per 100,000 in the.

NOTE Confidence: 0.79554164

00:05:19.250 --> 00:05:21.820 Massachusetts, Connecticut and New York.

NOTE Confidence: 0.79554164

00:05:21.820 --> 00:05:26.218 So if we look back more.

NOTE Confidence: 0.79554164

00:05:26.220 --> 00:05:27.340 In depth into it,

NOTE Confidence: 0.79554164

00:05:27.340 --> 00:05:29.983 we see that in the US the liver

NOTE Confidence: 0.79554164

00:05:29.983 --> 00:05:32.208 cancer incidence has increased almost

NOTE Confidence: 0.79554164

00:05:32.208 --> 00:05:34.909 three times in the last 30 years,

NOTE Confidence: 0.79554164

00:05:34.910 --> 00:05:36.720 and the mortality is increased

NOTE Confidence: 0.79554164

00:05:36.720 --> 00:05:38.530 almost two times as shown.

NOTE Confidence: 0.79554164

00:05:38.530 --> 00:05:41.057 Also in this graph on the right,

NOTE Confidence: 0.79554164

00:05:41.060 --> 00:05:44.420 if we look at the numbers and

NOTE Confidence: 0.79554164

00:05:44.420 --> 00:05:47.270 compare the number with two big.

NOTE Confidence: 0.79554164

00:05:47.270 --> 00:05:49.958 GI killers in their adjustive system,

NOTE Confidence: 0.79554164

00:05:49.960 --> 00:05:51.820 like bankers and call,

NOTE Confidence: 0.79554164

00:05:51.820 --> 00:05:54.610 and we see that in Connecticut

NOTE Confidence: 0.79554164

00:05:54.700 --> 00:05:57.644 we have a record of 480 cases per

NOTE Confidence: 0.79554164

00:05:57.644 --> 00:06:00.462 year and this is a combination

NOTE Confidence: 0.79554164

00:06:00.462 --> 00:06:02.947 between HCC an intra Patrick.

NOTE Confidence: 0.7645225

00:06:05.080 --> 00:06:06.908 Cinema also the interparticle

NOTE Confidence: 0.7645225

00:06:06.908 --> 00:06:09.193 answer carcinoma is really minority,

NOTE Confidence: 0.7645225

00:06:09.200 --> 00:06:12.840 so we have 480 new cases and $320

NOTE Confidence: 0.7645225

00:06:12.840 --> 00:06:15.557 unfortunately and this is a figure

NOTE Confidence: 0.7645225

00:06:15.557 --> 00:06:18.125 which is similar to another big

NOTE Confidence: 0.7645225

00:06:18.223 --> 00:06:21.258 killer like the pancreatic cancer.

NOTE Confidence: 0.7645225

00:06:21.260 --> 00:06:26.630 730 and 520. So what?

NOTE Confidence: 0.7645225

00:06:26.630 --> 00:06:28.590 How does the molecular

NOTE Confidence: 0.7645225

00:06:28.590 --> 00:06:31.230 pathogenesis of apples for casino?

NOTE Confidence: 0.7645225

00:06:31.230 --> 00:06:33.258 We have said it.

NOTE Confidence: 0.68951565

00:06:35.310 --> 00:06:37.722 Most of the patients have cirrhosis

NOTE Confidence: 0.68951565

00:06:37.722 --> 00:06:40.667 and in fact the main theory is

NOTE Confidence: 0.68951565

00:06:40.667 --> 00:06:42.757 that in the cirrhotic nodule

NOTE Confidence: 0.68951565

00:06:42.757 --> 00:06:45.426 there are Even so happens that

NOTE Confidence: 0.68951565

00:06:45.426 --> 00:06:47.616 brings to Korando casino man.

NOTE Confidence: 0.68951565

00:06:47.620 --> 00:06:49.517 I'm in one of these is the.

NOTE Confidence: 0.5154471

00:06:51.700 --> 00:06:52.870 Alter the.

NOTE Confidence: 0.73909044

00:06:55.030 --> 00:06:58.398 TRT promoter that basically.

NOTE Confidence: 0.8252465

00:07:01.390 --> 00:07:04.048 Blocks the ability of the liver

NOTE Confidence: 0.8252465

00:07:04.048 --> 00:07:06.381 cell under information to undergo

NOTE Confidence: 0.8252465

00:07:06.381 --> 00:07:08.776 senescence and an among them.

NOTE Confidence: 0.8252465

00:07:08.780 --> 00:07:12.408 There are other possible.

NOTE Confidence: 0.8252465

00:07:12.410 --> 00:07:14.720 But the genetic event like P53,

NOTE Confidence: 0.8252465

00:07:14.720 --> 00:07:17.030 which is basically associated with aflatoxin,

NOTE Confidence: 0.8252465

00:07:17.030 --> 00:07:18.185 better cotton imitation,

NOTE Confidence: 0.8252465

00:07:18.185 --> 00:07:20.495 and so on and so forth.

NOTE Confidence: 0.8252465

00:07:20.500 --> 00:07:22.492 But this is a scenario that

NOTE Confidence: 0.8252465

00:07:22.492 --> 00:07:24.730 is not very well understood.

NOTE Confidence: 0.8252465

00:07:24.730 --> 00:07:27.226 All we can say for now is as

NOTE Confidence: 0.8252465

00:07:27.226 --> 00:07:29.739 there are two different classes,

NOTE Confidence: 0.8252465

00:07:29.740 --> 00:07:30.991 one name proliferation,

NOTE Confidence: 0.8252465

00:07:30.991 --> 00:07:33.493 the other non proliferation that are

NOTE Confidence: 0.8252465

00:07:33.493 --> 00:07:35.430 different in terms of their prognosis

NOTE Confidence: 0.8252465

00:07:35.430 --> 00:07:37.882 and in terms of their ability to

NOTE Confidence: 0.8252465

00:07:37.882 --> 00:07:39.746 respond eventually to immunotherapy.

NOTE Confidence: 0.76618826

00:07:41.910 --> 00:07:44.668 So I put the cell carcinoma is

NOTE Confidence: 0.76618826

00:07:44.668 --> 00:07:46.864 a very peculiar cancer because

NOTE Confidence: 0.76618826

00:07:46.864 --> 00:07:49.630 he has a 2 dual personality.

NOTE Confidence: 0.76618826

00:07:49.630 --> 00:07:51.868 It's a cancer in a failing

NOTE Confidence: 0.76618826

00:07:51.868 --> 00:07:54.937 vital organ and it can be seen

NOTE Confidence: 0.76618826

00:07:54.937 --> 00:07:56.925 from a biological perspective.

NOTE Confidence: 0.76618826

00:07:56.930 --> 00:07:59.070 There are inflammation induced phenomenon,

NOTE Confidence: 0.76618826

00:07:59.070 --> 00:08:00.026 oncogenic viruses,

NOTE Confidence: 0.76618826

00:08:00.026 --> 00:08:01.938 literally natural general mutational

NOTE Confidence: 0.76618826

00:08:01.938 --> 00:08:05.014 landscape and this brings to a complex

NOTE Confidence: 0.76618826

00:08:05.014 --> 00:08:07.216 tumor fenotype with the witches aggressive.

NOTE Confidence: 0.76618826

00:08:07.220 --> 00:08:10.076 It is a terror generals with

NOTE Confidence: 0.76618826

00:08:10.076 --> 00:08:11.980 a high recurrence rate.

NOTE Confidence: 0.76618826

00:08:11.980 --> 00:08:14.647 When is Sonic Liquor point of view?

NOTE Confidence: 0.76618826

00:08:14.650 --> 00:08:16.555 We have any plastic disease

NOTE Confidence: 0.76618826

00:08:16.555 --> 00:08:18.079 and the liver disease,

NOTE Confidence: 0.76618826

00:08:18.080 --> 00:08:19.460 and so the street.

NOTE Confidence: 0.76618826

00:08:19.460 --> 00:08:21.185 The treatment strategy has to

NOTE Confidence: 0.76618826

00:08:21.185 --> 00:08:23.197 be tailored according both to

NOTE Confidence: 0.76618826

00:08:23.197 --> 00:08:25.591 the tumor stage and the function

NOTE Confidence: 0.76618826

00:08:25.663 --> 00:08:27.219 of stage liver disease,

NOTE Confidence: 0.76618826

00:08:27.220 --> 00:08:29.642 and this creates some of the peculiar

NOTE Confidence: 0.76618826

00:08:29.642 --> 00:08:32.547 things in that management of this disease.

NOTE Confidence: 0.76618826

00:08:32.550 --> 00:08:34.854 So we don't have one single way to

NOTE Confidence: 0.76618826

00:08:34.854 --> 00:08:37.289 manage it that you have resection

NOTE Confidence: 0.76618826

00:08:37.289 --> 00:08:39.073 ablation came embolization value

NOTE Confidence: 0.76618826

00:08:39.073 --> 00:08:40.560 or addition therapy.

NOTE Confidence: 0.76618826

00:08:40.560 --> 00:08:42.840 Systemic therapy still has a.

NOTE Confidence: 0.76618826

00:08:42.840 --> 00:08:44.800 At growing Bastille small role,

NOTE Confidence: 0.76618826

00:08:44.800 --> 00:08:46.760 we have the possibility to

NOTE Confidence: 0.76618826

00:08:46.760 --> 00:08:47.936 transport the patient.

NOTE Confidence: 0.76618826

00:08:47.940 --> 00:08:50.677 The only solid organ that can be

NOTE Confidence: 0.76618826

00:08:50.677 --> 00:08:52.781 transplanted and most of these

NOTE Confidence: 0.76618826

00:08:52.781 --> 00:08:54.489 patients actually die because

NOTE Confidence: 0.76618826

00:08:54.489 --> 00:08:57.516 of liver failure and in fact one

NOTE Confidence: 0.76618826

00:08:57.516 --> 00:09:00.407 professional figure that is involved in this.

NOTE Confidence: 0.76618826

00:09:00.410 --> 00:09:01.940 It is the hepatologist.

NOTE Confidence: 0.84268975

00:09:04.350 --> 00:09:06.950 What, because of all this,

NOTE Confidence: 0.84268975

00:09:06.950 --> 00:09:08.504 different professionals involved

NOTE Confidence: 0.84268975

00:09:08.504 --> 00:09:11.612 in in this in the treatment,

NOTE Confidence: 0.84268975

00:09:11.620 --> 00:09:14.884 the entry points usually are multiple

NOTE Confidence: 0.84268975

00:09:14.884 --> 00:09:18.318 Ann and this multiple entry points

NOTE Confidence: 0.84268975

00:09:18.318 --> 00:09:21.223 in the system creates different

NOTE Confidence: 0.84268975

00:09:21.223 --> 00:09:24.630 trajectory for the patient with way.

NOTE Confidence: 0.84268975

00:09:24.630 --> 00:09:26.912 Dispassion of resource is an an can

NOTE Confidence: 0.84268975

00:09:26.912 --> 00:09:29.855 impact on the outcome because there is a

NOTE Confidence: 0.84268975

00:09:29.855 --> 00:09:32.577 confusion and you don't really know what

NOTE Confidence: 0.84268975

00:09:32.577 --> 00:09:35.216 the part where the patient should follow.

NOTE Confidence: 0.84268975

00:09:35.220 --> 00:09:38.145 And this is one of the reason why it

NOTE Confidence: 0.84268975

00:09:38.145 --> 00:09:41.059 is important to have a team work.

NOTE Confidence: 0.84268975

00:09:41.060 --> 00:09:42.880 So to give an example,

NOTE Confidence: 0.84268975

00:09:42.880 --> 00:09:45.688 probably will take the whole day to this

NOTE Confidence: 0.84268975

00:09:45.688 --> 00:09:49.089 guy to figure out how to change the tires,

NOTE Confidence: 0.84268975

00:09:49.090 --> 00:09:51.460 whereas the Formula One team can

NOTE Confidence: 0.84268975

00:09:51.460 --> 00:09:54.090 do it exactly in 2.5 seconds.

NOTE Confidence: 0.84268975

00:09:54.090 --> 00:09:56.547 Which is amazing and is this love?

NOTE Confidence: 0.84268975

00:09:56.550 --> 00:09:59.366 Is this out of their coordination of care?

NOTE Confidence: 0.84268975

00:09:59.370 --> 00:10:01.476 So treatment of Apple Circus nominees,

NOTE Confidence: 0.84268975

00:10:01.480 --> 00:10:02.482 coordination of care,

NOTE Confidence: 0.84268975

00:10:02.482 --> 00:10:04.820 and this is the trajectory that the

NOTE Confidence: 0.84268975

00:10:04.881 --> 00:10:07.107 program has followed through the year.

NOTE Confidence: 0.84268975

00:10:07.110 --> 00:10:09.870 So we started as a conference and I

NOTE Confidence: 0.84268975

00:10:09.870 --> 00:10:12.390 remember this few people with me wrong.

NOTE Confidence: 0.84268975

00:10:12.390 --> 00:10:13.572 Salom Jeff Pollack.

NOTE Confidence: 0.84268975

00:10:13.572 --> 00:10:15.936 Jeff Wayne Rubber Dam part starting

NOTE Confidence: 0.84268975

00:10:15.936 --> 00:10:17.913 this little room and then he

NOTE Confidence: 0.84268975

00:10:17.913 --> 00:10:19.423 grew to a tumor board.

NOTE Confidence: 0.84268975

00:10:19.430 --> 00:10:21.398 Thanks to Tamar Daddy and then

NOTE Confidence: 0.84268975

00:10:21.398 --> 00:10:23.310 now it's becoming a program.

NOTE Confidence: 0.84268975

00:10:23.310 --> 00:10:25.360 And maybe it's really it's

NOTE Confidence: 0.84268975

00:10:25.360 --> 00:10:27.910 it's ready for the next step.

NOTE Confidence: 0.84268975

00:10:27.910 --> 00:10:30.154 So when it became a program

NOTE Confidence: 0.84268975

00:10:30.154 --> 00:10:32.550 we designed in IDL structure,

NOTE Confidence: 0.84268975

00:10:32.550 --> 00:10:35.497 which is the patient can come into

NOTE Confidence: 0.84268975

00:10:35.497 --> 00:10:38.038 the system through a single point.

NOTE Confidence: 0.84268975

00:10:38.040 --> 00:10:40.150 Still working on that aspect,

NOTE Confidence: 0.84268975

00:10:40.150 --> 00:10:42.712 and then it's actually discussing the

NOTE Confidence: 0.84268975

00:10:42.712 --> 00:10:45.209 tumor board where they treat him,

NOTE Confidence: 0.84268975

00:10:45.210 --> 00:10:47.590 allocation happens and is allocated

NOTE Confidence: 0.84268975

00:10:47.590 --> 00:10:49.970 to the different specialty according

NOTE Confidence: 0.84268975

00:10:50.041 --> 00:10:51.955 to the best treatment are an.

NOTE Confidence: 0.84268975

00:10:51.960 --> 00:10:54.830 After that it gets follow-up be 'cause

NOTE Confidence: 0.84268975

00:10:54.830 --> 00:10:57.988 we need to treat the risk factor.

NOTE Confidence: 0.84268975

00:10:57.990 --> 00:11:00.948 We need to mind the liver.

NOTE Confidence: 0.84268975

00:11:00.950 --> 00:11:03.740 Help us some chemo prevention protocols

NOTE Confidence: 0.84268975

00:11:03.740 --> 00:11:06.370 and mirroring this clinical operation.

NOTE Confidence: 0.84268975

00:11:06.370 --> 00:11:09.235 There is also research component

NOTE Confidence: 0.84268975

00:11:09.235 --> 00:11:12.950 which is again a team effort.

NOTE Confidence: 0.84268975

00:11:12.950 --> 00:11:16.316 So where are we? So we begin with the.

NOTE Confidence: 0.84268975

00:11:16.320 --> 00:11:19.506 This is a map of the Smiler Care center

NOTE Confidence: 0.84268975

00:11:19.506 --> 00:11:22.916 OK and this is the two main site for

NOTE Confidence: 0.84268975

00:11:22.916 --> 00:11:26.018 liver care here at again you have in

NOTE Confidence: 0.84268975

00:11:26.018 --> 00:11:28.809 hospital and the VA off without but

NOTE Confidence: 0.84268975

00:11:28.809 --> 00:11:31.347 through the recent year there was

NOTE Confidence: 0.84268975

00:11:31.347 --> 00:11:34.290 open a site in in Bridgeville with

NOTE Confidence: 0.84268975

00:11:34.290 --> 00:11:36.730 magnetic so insight in the ambari

NOTE Confidence: 0.84268975

00:11:36.730 --> 00:11:39.285 came to stand for my shift key.

NOTE Confidence: 0.84268975

00:11:39.290 --> 00:11:40.822 James Mattis T is,

NOTE Confidence: 0.84268975

00:11:40.822 --> 00:11:41.588 you know,

NOTE Confidence: 0.84268975

00:11:41.590 --> 00:11:43.900 the westerly side and soon Alan

NOTE Confidence: 0.84268975

00:11:43.900 --> 00:11:46.570 Jaffe will go to West for now.

NOTE Confidence: 0.84268975

00:11:46.570 --> 00:11:48.802 This is in combination with with

NOTE Confidence: 0.84268975

00:11:48.802 --> 00:11:50.682 the with the transplant team

NOTE Confidence: 0.84268975

00:11:50.682 --> 00:11:52.957 with which we have a very good

NOTE Confidence: 0.84268975

00:11:52.957 --> 00:11:54.610 long standing collaboration.

NOTE Confidence: 0.84268975

00:11:54.610 --> 00:11:58.226 Now it really takes a village to treat

NOTE Confidence: 0.84268975

00:11:58.226 --> 00:12:01.116 this cancer and here you can see.

NOTE Confidence: 0.84268975

00:12:01.120 --> 00:12:03.526 Not all of their colleagues that

NOTE Confidence: 0.84268975

00:12:03.526 --> 00:12:06.149 participates and I have to say it's

NOTE Confidence: 0.84268975

00:12:06.149 --> 00:12:08.354 it's a real privilege to be able

NOTE Confidence: 0.84268975

00:12:08.429 --> 00:12:10.649 to work with these individuals,

NOTE Confidence: 0.84268975

00:12:10.650 --> 00:12:12.550 and they are extremely skilled.

NOTE Confidence: 0.84268975

00:12:12.550 --> 00:12:15.147 All of them are leaders in their

NOTE Confidence: 0.84268975

00:12:15.147 --> 00:12:17.878 own right are in their own field,

NOTE Confidence: 0.84268975

00:12:17.880 --> 00:12:20.414 and so the discussion that we have

NOTE Confidence: 0.84268975

00:12:20.414 --> 00:12:22.967 are so enlightening and we follow a

NOTE Confidence: 0.84268975

00:12:22.967 --> 00:12:25.061 like a structure of discussion going

NOTE Confidence: 0.84268975

00:12:25.128 --> 00:12:27.408 through and analyze the reception,

NOTE Confidence: 0.8491186

00:12:27.410 --> 00:12:28.400 the transplant candidacy,

NOTE Confidence: 0.8491186

00:12:28.400 --> 00:12:31.244 the OR whether we need to use local

NOTE Confidence: 0.8491186

00:12:31.244 --> 00:12:33.116 regional treatment like ablation,

NOTE Confidence: 0.8491186

00:12:33.120 --> 00:12:33.968 criminalization, radiation.

NOTE Confidence: 0.8491186

00:12:33.968 --> 00:12:38.139 It's I don't have the time to go into this,

NOTE Confidence: 0.8491186

00:12:38.140 --> 00:12:41.212 but it's it's every single all of this

NOTE Confidence: 0.8491186

00:12:41.212 --> 00:12:42.998 possible treatment is very complex

NOTE Confidence: 0.8491186

00:12:42.998 --> 00:12:45.210 and the decision making is a is

NOTE Confidence: 0.8491186

00:12:45.285 --> 00:12:47.709 even more complex because it depends

NOTE Confidence: 0.8491186

00:12:47.709 --> 00:12:49.702 from systemic and local factors,

NOTE Confidence: 0.8491186

00:12:49.702 --> 00:12:51.934 and in fact we really an.

NOTE Confidence: 0.8491186

00:12:51.940 --> 00:12:53.805 We basically follow the Barcelona

NOTE Confidence: 0.8491186

00:12:53.805 --> 00:12:56.040 Liver cancer treatment, which is a.

NOTE Confidence: 0.81663

00:12:58.460 --> 00:13:01.022 Used by master Lever Societies an

NOTE Confidence: 0.81663

00:13:01.022 --> 00:13:04.329 but it really has a lot of troubles.

NOTE Confidence: 0.81663

00:13:04.330 --> 00:13:05.842 OK, there are changes.

NOTE Confidence: 0.81663

00:13:05.842 --> 00:13:08.110 This is the latest version and

NOTE Confidence: 0.81663

00:13:08.184 --> 00:13:10.609 takes into account liver function,

NOTE Confidence: 0.81663

00:13:10.610 --> 00:13:12.705 performance status and and then

NOTE Confidence: 0.81663

00:13:12.705 --> 00:13:14.800 atomic location of the cancer.

NOTE Confidence: 0.81663

00:13:14.800 --> 00:13:17.212 But really there are lot of

NOTE Confidence: 0.81663

00:13:17.212 --> 00:13:19.756 troubles and we cannot be so

NOTE Confidence: 0.81663

00:13:19.756 --> 00:13:22.312 strict with the categories and for

NOTE Confidence: 0.81663

00:13:22.312 --> 00:13:24.858 example this was written in 2019.

NOTE Confidence: 0.81663

00:13:24.860 --> 00:13:26.985 Now the first line treatment

NOTE Confidence: 0.81663

00:13:26.985 --> 00:13:29.110 is that is above but.

NOTE Confidence: 0.81663

00:13:29.110 --> 00:13:30.870 Cannot be only confined to

NOTE Confidence: 0.81663

00:13:30.870 --> 00:13:32.630 patient at about to die,

NOTE Confidence: 0.81663

00:13:32.630 --> 00:13:34.390 as in this staging system,

NOTE Confidence: 0.81663

00:13:34.390 --> 00:13:36.420 so a lot of things have changed

NOTE Confidence: 0.81663

00:13:36.420 --> 00:13:38.419 and that made difficult by the

NOTE Confidence: 0.81663

00:13:38.419 --> 00:13:40.543 fact that we have multiple theology

NOTE Confidence: 0.81663

00:13:40.543 --> 00:13:42.837 at the underlying liver disease.

NOTE Confidence: 0.81663

00:13:42.840 --> 00:13:44.946 The frequent comma abilities in fact,

NOTE Confidence: 0.81663

00:13:44.950 --> 00:13:46.702 this is a cancer.

NOTE Confidence: 0.81663

00:13:46.702 --> 00:13:49.790 That picture above 65 years of age.

NOTE Confidence: 0.81663

00:13:49.790 --> 00:13:51.454 Multiple treatment option and

NOTE Confidence: 0.81663

00:13:51.454 --> 00:13:54.264 70% of them have a recurrence of

NOTE Confidence: 0.81663

00:13:54.264 --> 00:13:57.258 the cancer in the next 20 months.

NOTE Confidence: 0.81663

00:13:57.260 --> 00:13:58.920 We have liver transplantation

NOTE Confidence: 0.81663

00:13:58.920 --> 00:14:00.165 and other actors,

NOTE Confidence: 0.81663

00:14:00.170 --> 00:14:04.335 so the only way to maintain a.

NOTE Confidence: 0.81663

00:14:04.340 --> 00:14:06.518 Structure approach this is to is

NOTE Confidence: 0.81663

00:14:06.518 --> 00:14:08.999 to that room and board with four

NOTE Confidence: 0.81663

00:14:08.999 --> 00:14:11.712 hours is not a way where we present

NOTE Confidence: 0.81663

00:14:11.712 --> 00:14:14.154 strange cases is really the machine

NOTE Confidence: 0.81663

00:14:14.154 --> 00:14:17.190 Ann and the credit for this goes to

NOTE Confidence: 0.81663

00:14:17.190 --> 00:14:19.799 my colleague and friend to Mark Addy,

NOTE Confidence: 0.81663

00:14:19.800 --> 00:14:22.480 who set it up and now we we

NOTE Confidence: 0.81663

00:14:22.480 --> 00:14:24.579 discussed 13 cases each week.

NOTE Confidence: 0.81663

00:14:24.580 --> 00:14:27.149 Last year we even with the kovit

NOTE Confidence: 0.81663

00:14:27.149 --> 00:14:30.323 we discuss 520 cases and one of the

NOTE Confidence: 0.81663

00:14:30.323 --> 00:14:32.729 busiest actually tumor Board 2 of

NOTE Confidence: 0.81663

00:14:32.729 --> 00:14:35.369 200 of them with new cases we have.

NOTE Confidence: 0.81663

00:14:35.370 --> 00:14:37.350 300 patient and follow up.

NOTE Confidence: 0.81663

00:14:37.350 --> 00:14:39.732 150 new cases and these actually

NOTE Confidence: 0.81663

00:14:39.732 --> 00:14:41.710 treated in several different ways,

NOTE Confidence: 0.81663

00:14:41.710 --> 00:14:45.643 but this is not the venue to to go

NOTE Confidence: 0.81663

00:14:45.643 --> 00:14:49.940 through the volumes or to their substantial.

NOTE Confidence: 0.81663

00:14:49.940 --> 00:14:52.257 The tumor board is also where we

NOTE Confidence: 0.81663

00:14:52.257 --> 00:14:54.778 got ideas for research and ideas

NOTE Confidence: 0.81663

00:14:54.778 --> 00:14:57.203 for for improvement and innovation.

NOTE Confidence: 0.81663

00:14:57.210 --> 00:15:00.010 This is that list of items that we

NOTE Confidence: 0.81663

00:15:00.010 --> 00:15:02.869 discussed at the last steering committee.

NOTE Confidence: 0.81663

00:15:02.870 --> 00:15:03.750 For example,

NOTE Confidence: 0.81663

00:15:03.750 --> 00:15:06.390 several of this question that I'm

NOTE Confidence: 0.81663

00:15:06.390 --> 00:15:10.530 not going to read all of them, but.

NOTE Confidence: 0.81663

00:15:10.530 --> 00:15:13.498 Generate. Recent opportunities.

NOTE Confidence: 0.81663

00:15:13.498 --> 00:15:15.550 Anne Anne, Anne,

NOTE Confidence: 0.81663

00:15:15.550 --> 00:15:18.150 Anne and also great care I I wanna

NOTE Confidence: 0.81663

00:15:18.150 --> 00:15:20.180 go briefly through this case.

NOTE Confidence: 0.81663

00:15:20.180 --> 00:15:22.665 This was a patient. Refer to doctor.

NOTE Confidence: 0.81663

00:15:22.670 --> 00:15:24.770 She's key for transfer evaluation

NOTE Confidence: 0.81663

00:15:24.770 --> 00:15:27.328 Mike so the patient realized that

NOTE Confidence: 0.81663

00:15:27.328 --> 00:15:29.248 he had actually liver cancer.

NOTE Confidence: 0.81663

00:15:29.250 --> 00:15:30.930 And Moran had infiltrative

NOTE Confidence: 0.81663

00:15:30.930 --> 00:15:32.610 hepatocellular carcinoma with with

NOTE Confidence: 0.81663

00:15:32.610 --> 00:15:34.849 the tumour portal vein thrombosis.

NOTE Confidence: 0.81663

00:15:34.850 --> 00:15:37.818 So we discussed the case at the

NOTE Confidence: 0.81663

00:15:37.818 --> 00:15:41.063 tumor board and it was decided that

NOTE Confidence: 0.81663

00:15:41.063 --> 00:15:44.530 there was no other option rather than

NOTE Confidence: 0.81663

00:15:44.530 --> 00:15:47.860 medical treatment or offering a trial.

NOTE Confidence: 0.81663

00:15:47.860 --> 00:15:50.266 Stacy did try to give him

NOTE Confidence: 0.81663

00:15:50.266 --> 00:15:52.110 softening by the beginning I,

NOTE Confidence: 0.81663

00:15:52.110 --> 00:15:54.532 but this was denied by the insurance

NOTE Confidence: 0.81663

00:15:54.532 --> 00:15:56.935 and so it happened at Stacy

NOTE Confidence: 0.81663

00:15:56.935 --> 00:15:59.509 adjust open atrial at the initial

NOTE Confidence: 0.81663

00:15:59.509 --> 00:16:01.367 trial with a diesel Bev,

NOTE Confidence: 0.81663

00:16:01.370 --> 00:16:03.300 which is now you know,

NOTE Confidence: 0.81663

00:16:03.300 --> 00:16:05.982 the first line treatment for back

NOTE Confidence: 0.81663

00:16:05.982 --> 00:16:09.229 in that time was actually we were

NOTE Confidence: 0.81663

00:16:09.229 --> 00:16:11.965 very lucky that we could offer

NOTE Confidence: 0.81663

00:16:11.965 --> 00:16:14.296 him and as you see here.

NOTE Confidence: 0.81663

00:16:14.300 --> 00:16:16.300 In the graph of plotting

NOTE Confidence: 0.81663

00:16:16.300 --> 00:16:17.500 the alpha fetoprotein,

NOTE Confidence: 0.81663

00:16:17.500 --> 00:16:19.500 he had a complete response.

NOTE Confidence: 0.8041078

00:16:21.850 --> 00:16:24.016 But in the next two years,

NOTE Confidence: 0.8041078

00:16:24.020 --> 00:16:26.090 this patient was completely and the

NOTE Confidence: 0.8041078

00:16:26.090 --> 00:16:28.370 quality of life of this patient,

NOTE Confidence: 0.8041078

00:16:28.370 --> 00:16:29.794 which was completely altered

NOTE Confidence: 0.8041078

00:16:29.794 --> 00:16:31.574 by recurrent severe episodes of

NOTE Confidence: 0.8041078

00:16:31.574 --> 00:16:32.709 portosystemic several opathy.

NOTE Confidence: 0.8041078

00:16:32.710 --> 00:16:35.334 As you can see here from the ammonia

NOTE Confidence: 0.8041078

00:16:35.334 --> 00:16:37.562 and actually in during one of

NOTE Confidence: 0.8041078

00:16:37.562 --> 00:16:39.437 these emission it also discussion

NOTE Confidence: 0.8041078

00:16:39.437 --> 00:16:41.758 about goals of care was initiated,

NOTE Confidence: 0.8041078

00:16:41.760 --> 00:16:44.595 so we had a patient who was treated by

NOTE Confidence: 0.8041078

00:16:44.595 --> 00:16:47.189 with you from this malignant tumor.

NOTE Confidence: 0.8041078

00:16:47.190 --> 00:16:49.759 But he was dying because I believe

NOTE Confidence: 0.8041078

00:16:49.759 --> 00:16:51.270 this is an act.

NOTE Confidence: 0.8041078

00:16:51.270 --> 00:16:53.905 .2 very bright hepatologist wanagas

NOTE Confidence: 0.8041078

00:16:53.905 --> 00:16:56.540 intervals with system are in,

NOTE Confidence: 0.8041078

00:16:56.540 --> 00:16:58.121 another is stalled.

NOTE Confidence: 0.8041078

00:16:58.121 --> 00:17:00.756 Slacker, which is an interventional

NOTE Confidence: 0.8041078

00:17:00.756 --> 00:17:01.810 hepatology calling,

NOTE Confidence: 0.8041078

00:17:01.810 --> 00:17:04.966 decided to embolize his plane arena.

NOTE Confidence: 0.8041078

00:17:04.970 --> 00:17:08.132 Shanta and now the patient is

NOTE Confidence: 0.8041078

00:17:08.132 --> 00:17:10.160 functional cancer free, happy.

NOTE Confidence: 0.8041078

00:17:10.160 --> 00:17:12.800 And when he refers to what

NOTE Confidence: 0.8041078

00:17:12.800 --> 00:17:15.080 happened with the insurance,

NOTE Confidence: 0.8041078

00:17:15.080 --> 00:17:17.210 he quotes wisdom churches saying pessimist

NOTE Confidence: 0.8041078

00:17:17.210 --> 00:17:19.320 sees difficulty in every opportunity,

NOTE Confidence: 0.8041078

00:17:19.320 --> 00:17:20.856 an optimist sees opportunity

NOTE Confidence: 0.8041078

00:17:20.856 --> 00:17:22.008 in every difficulty.

NOTE Confidence: 0.8041078

00:17:22.010 --> 00:17:25.026 So this is a case which we learn

NOTE Confidence: 0.8041078

00:17:25.026 --> 00:17:28.165 a lot about it an an in fact.

NOTE Confidence: 0.8041078

00:17:28.170 --> 00:17:28.954 Now particularly,

NOTE Confidence: 0.8041078

00:17:28.954 --> 00:17:29.738 you know,

NOTE Confidence: 0.8041078

00:17:29.738 --> 00:17:32.535 one of the things that was interesting

NOTE Confidence: 0.8041078

00:17:32.535 --> 00:17:35.076 in the Gary case was that he

NOTE Confidence: 0.8041078

00:17:35.076 --> 00:17:37.410 never had a recurrence an will.

NOTE Confidence: 0.8041078

00:17:37.410 --> 00:17:38.565 I said occurrences,

NOTE Confidence: 0.8041078

00:17:38.565 --> 00:17:40.105 something that playing sour

NOTE Confidence: 0.8041078

00:17:40.105 --> 00:17:42.700 patient 6070% of them in there.

NOTE Confidence: 0.8041078

00:17:42.700 --> 00:17:44.975 In their first two years,

NOTE Confidence: 0.8041078

00:17:44.980 --> 00:17:47.948 so that prompted the opening of a

NOTE Confidence: 0.8041078

00:17:47.948 --> 00:17:50.863 try again by Stacy and D'istria

NOTE Confidence: 0.8041078

00:17:50.863 --> 00:17:53.443 will actually try to address

NOTE Confidence: 0.8041078

00:17:53.443 --> 00:17:56.469 the role of adjuvant treatment

NOTE Confidence: 0.8041078

00:17:56.469 --> 00:17:58.997 after surgery or ablation.

NOTE Confidence: 0.8041078

00:17:59.000 --> 00:18:01.085 Another tria is being brought

NOTE Confidence: 0.8041078

00:18:01.085 --> 00:18:02.753 here by David Madore.

NOTE Confidence: 0.8041078

00:18:02.760 --> 00:18:04.432 Fu actually addresses and

NOTE Confidence: 0.8041078

00:18:04.432 --> 00:18:06.104 other nuances of this,

NOTE Confidence: 0.8041078

00:18:06.110 --> 00:18:08.686 so he his aim is to understand

NOTE Confidence: 0.8041078

00:18:08.686 --> 00:18:11.750 whether there is a benefit in what

NOTE Confidence: 0.8041078

00:18:11.750 --> 00:18:13.630 we call combination treatment.

NOTE Confidence: 0.8041078

00:18:13.630 --> 00:18:16.132 So the idea to combine came

NOTE Confidence: 0.8041078

00:18:16.132 --> 00:18:17.383 embolization with the.

NOTE Confidence: 0.62811226

00:18:19.590 --> 00:18:23.126 Even on Koleji, in combination with a PKI.

NOTE Confidence: 0.62811226

00:18:23.130 --> 00:18:25.758 And another important aspect of the

NOTE Confidence: 0.62811226

00:18:25.758 --> 00:18:29.374 program is the fact that we really tried

NOTE Confidence: 0.62811226

00:18:29.374 --> 00:18:32.050 to record and measure the outcomes.

NOTE Confidence: 0.62811226

00:18:32.050 --> 00:18:34.280 Ariel's affair with John awfully.

NOTE Confidence: 0.7676826

00:18:38.290 --> 00:18:41.237 My tarantula Shapiro at there are curating

NOTE Confidence: 0.7676826

00:18:41.237 --> 00:18:44.229 a database of 1000 patients in India

NOTE Confidence: 0.7676826

00:18:44.229 --> 00:18:47.166 and the survival code divided by BCSC

NOTE Confidence: 0.7676826

00:18:47.166 --> 00:18:51.438 states that you see, here are our own.

NOTE Confidence: 0.7676826

00:18:51.438 --> 00:18:54.898 Outcomes so we can really.

NOTE Confidence: 0.7676826

00:18:54.900 --> 00:18:57.138 Make the termination letter based on.

NOTE Confidence: 0.7676826

00:18:57.140 --> 00:18:58.985 Now our environment in expertise

NOTE Confidence: 0.7676826

00:18:58.985 --> 00:19:01.230 and is simple example that the

NOTE Confidence: 0.7676826

00:19:01.230 --> 00:19:03.252 outcome is outstanding up to more

NOTE Confidence: 0.7676826

00:19:03.252 --> 00:19:05.566 than three years for this campaign

NOTE Confidence: 0.7676826

00:19:05.566 --> 00:19:07.210 patient with initial cancer,

NOTE Confidence: 0.7676826

00:19:07.210 --> 00:19:09.891 things are changing after this an and

NOTE Confidence: 0.7676826

00:19:09.891 --> 00:19:12.886 there's a lot to be discussed in among

NOTE Confidence: 0.7676826

00:19:12.886 --> 00:19:16.159 these patients and I I don't have it here,

NOTE Confidence: 0.7676826

00:19:16.160 --> 00:19:18.398 but if anybody has a doubt

NOTE Confidence: 0.7676826

00:19:18.398 --> 00:19:19.144 about transplantation,

NOTE Confidence: 0.7676826

00:19:19.150 --> 00:19:22.444 I can tell you that the code was transfer

NOTE Confidence: 0.7676826

00:19:22.444 --> 00:19:25.448 stations like this so outstanding long term.

NOTE Confidence: 0.7676826

00:19:25.450 --> 00:19:28.530 Result for the few patient again get it,

NOTE Confidence: 0.7676826

00:19:28.530 --> 00:19:30.460 but this is a very,

NOTE Confidence: 0.7676826

00:19:30.460 --> 00:19:32.875 very important aspect of what we do

NOTE Confidence: 0.7676826

00:19:32.875 --> 00:19:35.745 an an it's going to be so complex

NOTE Confidence: 0.7676826

00:19:35.745 --> 00:19:38.469 that in fact Julius with Jim Duncan

NOTE Confidence: 0.7676826

00:19:38.469 --> 00:19:41.121 Manderly and John actually very much

NOTE Confidence: 0.7676826

00:19:41.121 --> 00:19:43.063 involved in trying to understand

NOTE Confidence: 0.7676826

00:19:43.063 --> 00:19:45.520 the use that we can have artificial

NOTE Confidence: 0.7676826

00:19:45.582 --> 00:19:47.398 intelligence in the diagonal.

NOTE Confidence: 0.7676826

00:19:47.400 --> 00:19:49.895 This characterization treatment of this

NOTE Confidence: 0.7676826

00:19:49.895 --> 00:19:53.191 Council and we expect that this would

NOTE Confidence: 0.7676826

00:19:53.191 --> 00:19:56.087 be a great aid to our decision making

NOTE Confidence: 0.7676826

00:19:56.172 --> 00:19:58.968 and also discovery of new approaches.

NOTE Confidence: 0.7676826

00:19:58.970 --> 00:20:02.648 So what the liver cancer program

NOTE Confidence: 0.7676826

00:20:02.648 --> 00:20:05.100 doesn't have a formalized?

NOTE Confidence: 0.6834885

00:20:08.420 --> 00:20:10.440 Visas program but is actually

NOTE Confidence: 0.6834885

00:20:10.440 --> 00:20:12.460 the assembly of of several

NOTE Confidence: 0.6834885

00:20:12.536 --> 00:20:14.630 different interrested people.

NOTE Confidence: 0.6834885

00:20:14.630 --> 00:20:17.020 What have we done to.

NOTE Confidence: 0.80727184

00:20:19.030 --> 00:20:21.346 Put together these people so the

NOTE Confidence: 0.80727184

00:20:21.346 --> 00:20:23.996 first thing that we have been doing

NOTE Confidence: 0.80727184

00:20:23.996 --> 00:20:26.902 with Julius De Mar is is these liver

NOTE Confidence: 0.80727184

00:20:26.902 --> 00:20:29.530 cancer talks their monthly in the

NOTE Confidence: 0.80727184

00:20:29.530 --> 00:20:31.662 late late afternoon on Thursday.

NOTE Confidence: 0.80727184

00:20:31.662 --> 00:20:34.910 Each of them with two or three percent

NOTE Confidence: 0.80727184

00:20:34.998 --> 00:20:37.546 Asia and this has to be ongoing.

NOTE Confidence: 0.80727184

00:20:37.550 --> 00:20:39.520 Research are now published work.

NOTE Confidence: 0.80727184

00:20:39.520 --> 00:20:41.856 It covers all the aspects, clinical,

NOTE Confidence: 0.80727184

00:20:41.856 --> 00:20:44.052 translation and healthcare and and this

NOTE Confidence: 0.80727184

00:20:44.052 --> 00:20:46.219 actually this approach Spark collaboration.

NOTE Confidence: 0.80727184

00:20:46.220 --> 00:20:48.240 There were paper grant application

NOTE Confidence: 0.80727184

00:20:48.240 --> 00:20:50.260 and also a big step.

NOTE Confidence: 0.80727184

00:20:50.260 --> 00:20:53.207 Forward was at last October when again

NOTE Confidence: 0.80727184

00:20:53.207 --> 00:20:56.579 with the help of the Miami Justice Ann,

NOTE Confidence: 0.80727184

00:20:56.580 --> 00:20:59.852 and thanks to the help of Gary Honeycutt's

NOTE Confidence: 0.80727184

00:20:59.852 --> 00:21:02.889 and his team in the Cancer Center,

NOTE Confidence: 0.80727184

00:21:02.890 --> 00:21:06.033 we put forward the first liver cancer

NOTE Confidence: 0.80727184

00:21:06.033 --> 00:21:08.613 Super Summit which is called pre

NOTE Confidence: 0.80727184

00:21:08.613 --> 00:21:11.301 Lude because he was not in person.

NOTE Confidence: 0.80727184

00:21:11.310 --> 00:21:12.902 Where was Virtu are,

NOTE Confidence: 0.80727184

00:21:12.902 --> 00:21:15.859 but the mission was to address the

NOTE Confidence: 0.80727184

00:21:15.859 --> 00:21:18.805 Uncle logic challenges or liver cancer

NOTE Confidence: 0.80727184

00:21:18.805 --> 00:21:21.610 to the collaboration amount of abide.

NOTE Confidence: 0.80727184

00:21:21.610 --> 00:21:24.110 Spectrum will be a faculty.

NOTE Confidence: 0.80727184

00:21:24.110 --> 00:21:26.917 And I'm I'm gonna really run through

NOTE Confidence: 0.80727184

00:21:26.917 --> 00:21:29.946 some of this visa suspect and what

NOTE Confidence: 0.80727184

00:21:29.946 --> 00:21:33.015 in what I call the Commonwealth to

NOTE Confidence: 0.80727184

00:21:33.015 --> 00:21:35.654 liver cancer is at yeah OK because

NOTE Confidence: 0.80727184

00:21:35.654 --> 00:21:37.640 it's not again formalized structure,

NOTE Confidence: 0.80727184

00:21:37.640 --> 00:21:40.510 but is the gathering of of interested

NOTE Confidence: 0.80727184

00:21:40.573 --> 00:21:42.967 people coming from the medical school,

NOTE Confidence: 0.80727184

00:21:42.970 --> 00:21:45.020 the School of Public Health?

NOTE Confidence: 0.80727184

00:21:45.020 --> 00:21:47.070 the VA system involving departments

NOTE Confidence: 0.80727184

00:21:47.070 --> 00:21:48.710 like surgery, internal medicine,

NOTE Confidence: 0.80727184

00:21:48.710 --> 00:21:50.826 the Cancer Center, the year,

NOTE Confidence: 0.80727184

00:21:50.826 --> 00:21:51.712 liver cancer,

NOTE Confidence: 0.80727184

00:21:51.712 --> 00:21:53.927 the Department of Pathology and

NOTE Confidence: 0.80727184

00:21:53.927 --> 00:21:55.679 so on and so forth.

NOTE Confidence: 0.80727184

00:21:55.680 --> 00:21:58.210 But all these people actually.

NOTE Confidence: 0.80727184

00:21:58.210 --> 00:22:01.787 In a 2019-2020 publish it 72 papers,

NOTE Confidence: 0.80727184

00:22:01.790 --> 00:22:05.150 an 38 of them original article 7R

NOTE Confidence: 0.80727184

00:22:05.150 --> 00:22:09.416 position paper 14 reviews and 14 of them

NOTE Confidence: 0.80727184

00:22:09.416 --> 00:22:12.146 are actually publishing in journals

NOTE Confidence: 0.80727184

00:22:12.240 --> 00:22:16.096 with an impact factor around or above 20,

NOTE Confidence: 0.80727184

00:22:16.100 --> 00:22:19.160 which I think is pretty remarkable.

NOTE Confidence: 0.80727184

00:22:19.160 --> 00:22:23.248 So just a very quickly glancing through it.

NOTE Confidence: 0.80727184

00:22:23.250 --> 00:22:26.315 The number of our faculties

NOTE Confidence: 0.80727184

00:22:26.315 --> 00:22:28.154 are actually involved.

NOTE Confidence: 0.80727184

00:22:28.160 --> 00:22:30.560 In studying the different risk

NOTE Confidence: 0.80727184

00:22:30.560 --> 00:22:32.960 factors that I mentioned before,

NOTE Confidence: 0.80727184

00:22:32.960 --> 00:22:35.360 so we have outstanding work

NOTE Confidence: 0.80727184

00:22:35.360 --> 00:22:36.800 performing virally theology,

NOTE Confidence: 0.80727184

00:22:36.800 --> 00:22:38.240 interaction with aging,

NOTE Confidence: 0.80727184

00:22:38.240 --> 00:22:39.200 the HIV.

NOTE Confidence: 0.80727184

00:22:39.200 --> 00:22:42.080 We have food program that addresses

NOTE Confidence: 0.80727184

00:22:42.080 --> 00:22:43.040 the obesity,

NOTE Confidence: 0.80727184

00:22:43.040 --> 00:22:45.735 diabetes and affolder alcoholic liver

NOTE Confidence: 0.80727184

00:22:45.735 --> 00:22:48.430 diseases in other regions branch

NOTE Confidence: 0.80727184

00:22:48.513 --> 00:22:51.103 which is which is growing an Ann

NOTE Confidence: 0.80727184

00:22:51.103 --> 00:22:53.600 and also health care disparities.

NOTE Confidence: 0.80727184

00:22:53.600 --> 00:22:56.909 An for example.

NOTE Confidence: 0.80727184

00:22:56.910 --> 00:22:57.420 Razor,

NOTE Confidence: 0.80727184

00:22:57.420 --> 00:23:00.480 osean and other faculties are addressing.

NOTE Confidence: 0.8019739

00:23:03.280 --> 00:23:05.130 Some of the. Differences that

NOTE Confidence: 0.8019739

00:23:05.130 --> 00:23:06.980 we see even in connecticu.

NOTE Confidence: 0.8019739

00:23:06.980 --> 00:23:10.964 So for example, as you can see here.

NOTE Confidence: 0.8019739

00:23:10.970 --> 00:23:13.388 The incidence of HCC is clearly

NOTE Confidence: 0.8019739

00:23:13.388 --> 00:23:15.948 higher in this panic and black

NOTE Confidence: 0.8019739

00:23:15.948 --> 00:23:18.118 population and hopefully will will

NOTE Confidence: 0.8019739

00:23:18.118 --> 00:23:21.436 try to nail down what the causes are.

NOTE Confidence: 0.8019739

00:23:21.440 --> 00:23:26.108 So outstanding results in outcome research,

NOTE Confidence: 0.8019739

00:23:26.110 --> 00:23:30.000 mostly addressing the role of

NOTE Confidence: 0.8019739

00:23:30.000 --> 00:23:33.890 surveillance and and all of.

NOTE Confidence: 0.8397243

00:23:36.930 --> 00:23:38.458 Antiviral treatment and the

NOTE Confidence: 0.8397243

00:23:38.458 --> 00:23:40.368 growing group of faculties are

NOTE Confidence: 0.8397243

00:23:40.368 --> 00:23:42.459 also interested in concert cost,

NOTE Confidence: 0.8397243

00:23:42.460 --> 00:23:44.040 effectiveness and care delivery.

NOTE Confidence: 0.8397243

00:23:44.040 --> 00:23:46.410 We do a lot of things,

NOTE Confidence: 0.8397243

00:23:46.410 --> 00:23:48.748 but we don't really know their value

NOTE Confidence: 0.8397243

00:23:48.748 --> 00:23:51.150 in terms of cost effectiveness,

NOTE Confidence: 0.8397243

00:23:51.150 --> 00:23:54.108 so this is another growing area.

NOTE Confidence: 0.8397243

00:23:54.110 --> 00:23:57.206 Translation studies that also growing and

NOTE Confidence: 0.8397243

00:23:57.206 --> 00:24:00.868 just to mention several faculties in Basic,

NOTE Confidence: 0.8397243

00:24:00.870 --> 00:24:03.470 more basic studies are interested

NOTE Confidence: 0.8397243

00:24:03.470 --> 00:24:06.070 in the transition between Nashville,

NOTE Confidence: 0.8397243

00:24:06.070 --> 00:24:10.060 roses and and cancer and in human

NOTE Confidence: 0.8397243

00:24:10.060 --> 00:24:14.428 Hansa ran and a lot of people

NOTE Confidence: 0.8397243

00:24:14.428 --> 00:24:17.593 is actually interesting in the.

NOTE Confidence: 0.8397243

00:24:17.600 --> 00:24:21.578 Role of the tumor micro environment.

NOTE Confidence: 0.8397243

00:24:21.580 --> 00:24:23.730 Which this is, I think,

NOTE Confidence: 0.8397243

00:24:23.730 --> 00:24:25.014 is very interesting.

NOTE Confidence: 0.8397243

00:24:25.014 --> 00:24:27.154 This is staining for Alpha,

NOTE Confidence: 0.8397243

00:24:27.160 --> 00:24:28.444 SMA, identifying fiber,

NOTE Confidence: 0.8397243

00:24:28.444 --> 00:24:29.300 ask cancer,

NOTE Confidence: 0.8397243

00:24:29.300 --> 00:24:30.563 associated fibroblasts in

NOTE Confidence: 0.8397243

00:24:30.563 --> 00:24:32.247 cholangiocarcinoma and in hepatoma

NOTE Confidence: 0.8397243

00:24:32.247 --> 00:24:34.450 you see two very different.

NOTE Confidence: 0.73542595

00:24:38.210 --> 00:24:40.274 Pathology Ann and these are correlated

NOTE Confidence: 0.73542595

00:24:40.274 --> 00:24:42.570 to two very different aggressiveness.

NOTE Confidence: 0.73542595

00:24:42.570 --> 00:24:45.090 Also the tumor let me very briefly

NOTE Confidence: 0.73542595

00:24:45.090 --> 00:24:48.362 mention some of our work in the macro

NOTE Confidence: 0.73542595

00:24:48.362 --> 00:24:50.482 environment or the calendar carcinoma

NOTE Confidence: 0.73542595

00:24:50.562 --> 00:24:53.278 showing the central role of calf or

NOTE Confidence: 0.73542595

00:24:53.278 --> 00:24:55.322 the Cancer Society fiberglassed in

NOTE Confidence: 0.73542595

00:24:55.322 --> 00:24:57.502 determining several of the aspects

NOTE Confidence: 0.73542595

00:24:57.502 --> 00:25:00.999 of the two Moran now our Co other

NOTE Confidence: 0.73542595

00:25:00.999 --> 00:25:02.687 colleagues are addressing this

NOTE Confidence: 0.73542595

00:25:02.687 --> 00:25:05.189 using single cell transcriptomics.

NOTE Confidence: 0.73542595

00:25:05.190 --> 00:25:07.242 This is also an interest of

NOTE Confidence: 0.73542595

00:25:07.242 --> 00:25:08.610 our colleagues in radiology.

NOTE Confidence: 0.73542595

00:25:08.610 --> 00:25:09.978 They're trying to use.

NOTE Confidence: 0.7527786

00:25:12.190 --> 00:25:15.144 The tools of radiology to generate reliable

NOTE Confidence: 0.7527786

00:25:15.144 --> 00:25:17.370 imaging biomarkers for immunotherapy.

NOTE Confidence: 0.7527786

00:25:17.370 --> 00:25:19.730 This is I, I think,

NOTE Confidence: 0.7527786

00:25:19.730 --> 00:25:23.041 it's granted or or or proposed for

NOTE Confidence: 0.7527786

00:25:23.041 --> 00:25:27.677 the NIH by David matter of MGM Duncan

NOTE Confidence: 0.7527786

00:25:27.677 --> 00:25:31.730 interest on the metabolic aspect is also.

NOTE Confidence: 0.7527786

00:25:31.730 --> 00:25:33.960 Followed by by Michael Nathanson,

NOTE Confidence: 0.7527786

00:25:33.960 --> 00:25:36.844 lab, and here is work from Emma

NOTE Confidence: 0.7527786

00:25:36.844 --> 00:25:39.310 tells where I'm like nothing.

NOTE Confidence: 0.7527786

00:25:39.310 --> 00:25:43.334 So I'm looking at the IP3 receptor and

NOTE Confidence: 0.7527786

00:25:43.334 --> 00:25:45.557 mitochondrial functionality in 80C and CCA,

NOTE Confidence: 0.7527786

00:25:45.560 --> 00:25:48.832 and they're all in in the in chronic

NOTE Confidence: 0.7527786

00:25:48.832 --> 00:25:52.206 affect like like existence of up doses

NOTE Confidence: 0.7527786

00:25:52.206 --> 00:25:55.181 or generating up talking factor of

NOTE Confidence: 0.7527786

00:25:55.181 --> 00:25:57.683 this was published very well last

NOTE Confidence: 0.7527786

00:25:57.683 --> 00:26:01.240 year and and finally mentioning.

NOTE Confidence: 0.7527786

00:26:01.240 --> 00:26:02.641 Tell you who,

NOTE Confidence: 0.7527786

00:26:02.641 --> 00:26:06.290 just join and the chair of pathology is,

NOTE Confidence: 0.7527786

00:26:06.290 --> 00:26:09.882 you know, a very well renowned liver cancer

NOTE Confidence: 0.7527786

00:26:09.882 --> 00:26:12.717 researcher and is doing several things.

NOTE Confidence: 0.7527786

00:26:12.720 --> 00:26:14.990 Among this he explaining to

NOTE Confidence: 0.7527786

00:26:14.990 --> 00:26:16.352 detect circulating metallated

NOTE Confidence: 0.7527786

00:26:16.352 --> 00:26:18.679 DNA as an early diagnosis.

NOTE Confidence: 0.7527786

00:26:18.680 --> 00:26:20.231 Wait, you see,

NOTE Confidence: 0.7527786

00:26:20.231 --> 00:26:23.333 and we're really looking forward very

NOTE Confidence: 0.7527786

00:26:23.333 --> 00:26:26.488 much to this study is an an also.

NOTE Confidence: 0.7527786

00:26:26.490 --> 00:26:29.250 He is trying to is using

NOTE Confidence: 0.7527786

00:26:29.250 --> 00:26:32.069 Kartiana Glypican 3 as a target.

NOTE Confidence: 0.7527786

00:26:32.070 --> 00:26:34.471 Hopefully not that big of a TC

NOTE Confidence: 0.7527786

00:26:34.471 --> 00:26:36.841 and and I'm I'm gonna finish

NOTE Confidence: 0.7527786

00:26:36.841 --> 00:26:39.349 now because the time is over.

NOTE Confidence: 0.7527786

00:26:39.350 --> 00:26:42.750 But you know this is just an example of the

NOTE Confidence: 0.7527786

00:26:42.835 --> 00:26:46.235 richness of the research that that we have.

NOTE Confidence: 0.7527786

00:26:46.240 --> 00:26:49.304 And really this is and I have to

NOTE Confidence: 0.7527786

00:26:49.304 --> 00:26:52.443 thank all the department that are

NOTE Confidence: 0.7527786

00:26:52.443 --> 00:26:55.283 involved in this enterprise and.

NOTE Confidence: 0.7527786

00:26:55.290 --> 00:26:57.936 You know each of these department.

NOTE Confidence: 0.7527786

00:26:57.940 --> 00:27:00.275 There are some hepatologist hiding

NOTE Confidence: 0.7527786

00:27:00.275 --> 00:27:03.489 there and and this is what what

NOTE Confidence: 0.7527786

00:27:03.489 --> 00:27:05.454 will I call your liver,

NOTE Confidence: 0.7527786

00:27:05.460 --> 00:27:08.106 which is a very old tradition.

NOTE Confidence: 0.7527786

00:27:08.110 --> 00:27:10.710 Here is going to celebrate

NOTE Confidence: 0.7527786

00:27:10.710 --> 00:27:12.270 the Diamond Jubilee.

NOTE Confidence: 0.7527786

00:27:12.270 --> 00:27:15.150 Next year and I thank you for your attention.

NOTE Confidence: 0.8417528

00:27:17.070 --> 00:27:18.700 Thank you very much, Mario.

NOTE Confidence: 0.8417528

00:27:18.700 --> 00:27:20.325 Very interesting talk. Are there

NOTE Confidence: 0.8417528

00:27:20.325 --> 00:27:21.950 any questions from the audience?

NOTE Confidence: 0.8524205

00:27:28.590 --> 00:27:30.456 I can start with one.

NOTE Confidence: 0.8524205

00:27:30.456 --> 00:27:33.185 So recently drugs have been developed

NOTE Confidence: 0.8524205

00:27:33.185 --> 00:27:36.090 that will cure hepatitis C virus.

NOTE Confidence: 0.8524205

00:27:36.090 --> 00:27:37.615 What fraction of people in

NOTE Confidence: 0.8524205

00:27:37.615 --> 00:27:38.835 this country are affected?

NOTE Confidence: 0.8524205

00:27:38.840 --> 00:27:40.968 People are being treated by these drugs.

NOTE Confidence: 0.8524205

00:27:40.970 --> 00:27:43.105 And what's the effect on liver cancer?

NOTE Confidence: 0.810661100000001

00:27:43.860 --> 00:27:47.066 Tell the the the strategy would be

NOTE Confidence: 0.810661100000001

00:27:47.066 --> 00:27:49.610 worldwide application of of HPV and

NOTE Confidence: 0.810661100000001

00:27:49.610 --> 00:27:52.158 therefore I would say that a growing

NOTE Confidence: 0.810661100000001

00:27:52.245 --> 00:27:54.897 amount of patients she is being

NOTE Confidence: 0.810661100000001

00:27:54.897 --> 00:27:57.849 treated should be treated that has had

NOTE Confidence: 0.810661100000001

00:27:57.849 --> 00:28:00.600 like a slowing down during the COVID

NOTE Confidence: 0.810661100000001

00:28:00.688 --> 00:28:03.496 crisis but should resume full time.

NOTE Confidence: 0.810661100000001

00:28:03.500 --> 00:28:06.118 The question of the effect on liver

NOTE Confidence: 0.810661100000001

00:28:06.118 --> 00:28:08.784 cancer is a very good question

NOTE Confidence: 0.810661100000001

00:28:08.784 --> 00:28:11.700 because there has been a great

NOTE Confidence: 0.810661100000001

00:28:11.700 --> 00:28:14.338 controversy becauses a lot of patient.

NOTE Confidence: 0.810661100000001

00:28:14.340 --> 00:28:16.160 After eradication of the virus,

NOTE Confidence: 0.810661100000001

00:28:16.160 --> 00:28:17.975 have the path surprised that

NOTE Confidence: 0.810661100000001

00:28:17.975 --> 00:28:19.064 delivered Carson happens.

NOTE Confidence: 0.810661100000001

00:28:19.070 --> 00:28:21.452 Anyway, this is happening in patients

NOTE Confidence: 0.810661100000001

00:28:21.452 --> 00:28:23.519 that were treated already with

NOTE Confidence: 0.810661100000001

00:28:23.519 --> 00:28:25.569 significant fibers in their liver.

NOTE Confidence: 0.810661100000001

00:28:25.570 --> 00:28:27.405 And it was initially proposed

NOTE Confidence: 0.810661100000001

00:28:27.405 --> 00:28:29.240 that actually the allocation of

NOTE Confidence: 0.810661100000001

00:28:29.300 --> 00:28:31.400 the virus would get rid of some

NOTE Confidence: 0.810661100000001

00:28:31.400 --> 00:28:33.090 kind of beneficial information,

NOTE Confidence: 0.810661100000001

00:28:33.090 --> 00:28:35.154 but further studies have shown that

NOTE Confidence: 0.810661100000001

00:28:35.154 --> 00:28:37.379 actually the the risk is decreased,

NOTE Confidence: 0.810661100000001

00:28:37.380 --> 00:28:38.552 but it's not zero.

NOTE Confidence: 0.810661100000001

00:28:38.552 --> 00:28:40.845 So why is not zero is something

NOTE Confidence: 0.810661100000001

00:28:40.845 --> 00:28:43.110 that we need to understand.

NOTE Confidence: 0.810661100000001

00:28:43.110 --> 00:28:46.054 My personal opinion is that we are simply

NOTE Confidence: 0.810661100000001

00:28:46.054 --> 00:28:48.478 eliminating one of the many risk factors.

NOTE Confidence: 0.810661100000001

00:28:48.480 --> 00:28:50.601 You know the the regular guy is

NOTE Confidence: 0.810661100000001

00:28:50.601 --> 00:28:53.227 a guy that didn't know to have

NOTE Confidence: 0.810661100000001

00:28:53.227 --> 00:28:55.272 actitis is a little overweight,

NOTE Confidence: 0.810661100000001

00:28:55.280 --> 00:28:56.292 has smoked.

NOTE Confidence: 0.810661100000001

00:28:56.292 --> 00:28:58.316 Is drinking, you know,

NOTE Confidence: 0.810661100000001

00:28:58.320 --> 00:29:02.737 not drunk but enjoying the wine Ann.

NOTE Confidence: 0.810661100000001

00:29:02.740 --> 00:29:05.674 It just doesn't know it an an therefore yeah,

NOTE Confidence: 0.810661100000001

00:29:05.680 --> 00:29:07.808 will you ever you have four risk

NOTE Confidence: 0.810661100000001

00:29:07.808 --> 00:29:09.928 factor of which you eliminate one?

NOTE Confidence: 0.810661100000001

00:29:09.930 --> 00:29:12.546 This is why this is a internal medicine.

NOTE Confidence: 0.810661100000001

00:29:12.550 --> 00:29:14.620 This is right because you really

NOTE Confidence: 0.810661100000001

00:29:14.620 --> 00:29:16.830 have to address all the risk

NOTE Confidence: 0.810661100000001

00:29:16.830 --> 00:29:18.725 factor in every single patient.

NOTE Confidence: 0.810661100000001

00:29:18.730 --> 00:29:19.132 Otherwise,

NOTE Confidence: 0.810661100000001

00:29:19.132 --> 00:29:21.544 you may fail like like the

NOTE Confidence: 0.810661100000001

00:29:21.544 --> 00:29:23.745 eradication of appetite is C shows

NOTE Confidence: 0.810661100000001

00:29:23.745 --> 00:29:25.599 in certain patients and so the

NOTE Confidence: 0.810661100000001

00:29:25.599 --> 00:29:27.206 basic clinical recommendation is

NOTE Confidence: 0.810661100000001

00:29:27.206 --> 00:29:30.062 that the patient that you were ever

NOTE Confidence: 0.810661100000001

00:29:30.070 --> 00:29:33.016 advocated while he was erotica still

NOTE Confidence: 0.810661100000001

00:29:33.016 --> 00:29:36.019 needs to undergo the six months.

NOTE Confidence: 0.810661100000001

00:29:36.020 --> 00:29:38.980 Screening and surveillance for ACC.

NOTE Confidence: 0.8986468

00:29:40.810 --> 00:29:42.180 Are there other other questions?

NOTE Confidence: 0.8398359

00:29:48.580 --> 00:29:52.114 OK, with that I I do see the vineyard

NOTE Confidence: 0.8398359

00:29:52.114 --> 00:29:54.480 behind your folder there in moderation.

NOTE Confidence: 0.8107145

00:29:55.750 --> 00:29:57.360 Yeah moderation, OK thank you.

NOTE Confidence: 0.8107145

00:29:57.360 --> 00:29:58.646 Thank you very much.

NOTE Confidence: 0.8107145

00:29:58.646 --> 00:30:00.258 Mario, thank you, thank you.

NOTE Confidence: 0.80257034

00:30:01.300 --> 00:30:03.675 So our next speaker today

NOTE Confidence: 0.80257034

00:30:03.675 --> 00:30:05.575 is is Jonathan Levinthal.

NOTE Confidence: 0.80257034

00:30:05.580 --> 00:30:08.040 Who is, I'm sorry, just lossed.

NOTE Confidence: 0.75871557

00:30:10.480 --> 00:30:13.000 My CHEAT SHEET here.

NOTE Confidence: 0.75871557

00:30:13.000 --> 00:30:14.950 So Jonathan is assistant professor

NOTE Confidence: 0.75871557

00:30:14.950 --> 00:30:17.333 of Dermatology and the director of

NOTE Confidence: 0.75871557

00:30:17.333 --> 00:30:19.158 the Yale Uncle Dermatology Clinic.

NOTE Confidence: 0.75871557

00:30:19.160 --> 00:30:22.240 He received his MD degree from New York

NOTE Confidence: 0.75871557

00:30:22.240 --> 00:30:24.940 University and is residency here at Yale.

NOTE Confidence: 0.75871557

00:30:24.940 --> 00:30:26.860 He specializes in caring for

NOTE Confidence: 0.75871557

00:30:26.860 --> 00:30:28.396 patients with skin cancer,

NOTE Confidence: 0.75871557

00:30:28.400 --> 00:30:30.225 beginning with skin screening programs

NOTE Confidence: 0.75871557

00:30:30.225 --> 00:30:32.923 to detect cancers and sun damage and

NOTE Confidence: 0.75871557

00:30:32.923 --> 00:30:34.555 optimize prevention and therapy.

NOTE Confidence: 0.75871557

00:30:34.560 --> 00:30:36.645 The clinic serves a dermatologic

NOTE Confidence: 0.75871557

00:30:36.645 --> 00:30:38.730 needs of cancer patients dealing

NOTE Confidence: 0.75871557

00:30:38.795 --> 00:30:40.715 with a variety of skin issues,

NOTE Confidence: 0.75871557

00:30:40.720 --> 00:30:42.645 including skin changes due to

NOTE Confidence: 0.75871557

00:30:42.645 --> 00:30:44.180 chemo therapies, can infections.

NOTE Confidence: 0.75871557

00:30:44.180 --> 00:30:46.080 Cancer involvement in the scan,

NOTE Confidence: 0.75871557

00:30:46.080 --> 00:30:46.736 radiation, dermatitis,

NOTE Confidence: 0.75871557

00:30:46.736 --> 00:30:48.704 and other changes due to radiation,

NOTE Confidence: 0.75871557

00:30:48.710 --> 00:30:50.350 so we'll hear that today.

NOTE Confidence: 0.75871557

00:30:50.350 --> 00:30:51.990 So Jonathan I'm looking forward

NOTE Confidence: 0.75871557

00:30:51.990 --> 00:30:53.640 hearing you talk. Thank you.

NOTE Confidence: 0.8538746

00:30:54.280 --> 00:30:56.009 Thank you so much and it's a

NOTE Confidence: 0.8538746

00:30:56.009 --> 00:30:57.578 real pleasure to be here today.

NOTE Confidence: 0.8538746

00:30:57.580 --> 00:30:59.232 So today I'm going to talk about

NOTE Confidence: 0.8538746

00:30:59.232 --> 00:31:00.630 dermatologic conditions in cancer patients,

NOTE Confidence: 0.8538746

00:31:00.630 --> 00:31:02.082 and I'm going to provide updates

NOTE Confidence: 0.8538746

00:31:02.082 --> 00:31:03.420 from the ankle dermatology program.

NOTE Confidence: 0.82274705

00:31:05.490 --> 00:31:08.106 So here is a list of my disclosures,

NOTE Confidence: 0.82274705

00:31:08.110 --> 00:31:10.000 mostly from serving on advisory

NOTE Confidence: 0.82274705

00:31:10.000 --> 00:31:11.890 councils with fellow Aqua dermatologist

NOTE Confidence: 0.82274705

00:31:11.951 --> 00:31:13.551 throughout the country looking at

NOTE Confidence: 0.82274705

00:31:13.551 --> 00:31:15.600 skin toxicities as well as some

NOTE Confidence: 0.82274705

00:31:15.600 --> 00:31:17.176 clinical trial research funding.

NOTE Confidence: 0.82274705

00:31:17.180 --> 00:31:18.825 So the objectives of the talks I

NOTE Confidence: 0.82274705

00:31:18.825 --> 00:31:20.525 wanted to start by introducing you

NOTE Confidence: 0.82274705

00:31:20.525 --> 00:31:22.090 to the Aqua dermatology program.

NOTE Confidence: 0.82274705

00:31:22.090 --> 00:31:24.134 Then I wanted to discuss the importance

NOTE Confidence: 0.82274705

00:31:24.134 --> 00:31:25.772 of cutaneous toxicities and how they

NOTE Confidence: 0.82274705

00:31:25.772 --> 00:31:27.188 can impact patients quality of life

NOTE Confidence: 0.82274705

00:31:27.188 --> 00:31:28.920 as well as their cancer therapies.

NOTE Confidence: 0.82274705

00:31:28.920 --> 00:31:30.252 When severe, I wanted to highlight

NOTE Confidence: 0.82274705

00:31:30.252 --> 00:31:31.707 some of the most common toxicities

NOTE Confidence: 0.82274705

00:31:31.707 --> 00:31:33.273 that I see from select targeted

NOTE Confidence: 0.82274705

00:31:33.273 --> 00:31:34.495 and immune checkpoint inhibitors

NOTE Confidence: 0.82274705

00:31:34.495 --> 00:31:35.799 and also traditional chemotherapy

NOTE Confidence: 0.82274705

00:31:35.799 --> 00:31:37.926 as well and discuss the role that

NOTE Confidence: 0.82274705

00:31:37.926 --> 00:31:39.014 aren't with their mythology.

NOTE Confidence: 0.82274705

00:31:39.020 --> 00:31:41.230 Plays at a Cancer Center.

NOTE Confidence: 0.82274705

00:31:41.230 --> 00:31:42.618 So for some background,

NOTE Confidence: 0.82274705

00:31:42.618 --> 00:31:44.353 the Uncle Dermatology program was

NOTE Confidence: 0.82274705

00:31:44.353 --> 00:31:46.270 established by my great mentor and friend,

NOTE Confidence: 0.82274705

00:31:46.270 --> 00:31:46.938 Jennifer Choi.

NOTE Confidence: 0.82274705

00:31:46.938 --> 00:31:48.608 Shortly after she graduated residency

NOTE Confidence: 0.82274705

00:31:48.608 --> 00:31:50.984 and then I had a great opportunity

NOTE Confidence: 0.82274705

00:31:50.984 --> 00:31:52.958 when she got recruited to Northwestern

NOTE Confidence: 0.82274705

00:31:53.012 --> 00:31:54.902 as a chief resident to start seeing

NOTE Confidence: 0.82274705

00:31:54.902 --> 00:31:56.665 patients in the clinic for which

NOTE Confidence: 0.82274705

00:31:56.665 --> 00:31:58.555 I've led the clinic ever since.

NOTE Confidence: 0.82274705

00:31:58.560 --> 00:32:00.384 And we've really seen a tremendous

NOTE Confidence: 0.82274705

00:32:00.384 --> 00:32:02.299 outgrow of support from so many

NOTE Confidence: 0.82274705

00:32:02.299 --> 00:32:03.909 colleagues in Metanx terjung Radon,

NOTE Confidence: 0.82274705

00:32:03.910 --> 00:32:04.552 an anthology,

NOTE Confidence: 0.82274705

00:32:04.552 --> 00:32:06.478 and the clinic has really grown

NOTE Confidence: 0.82274705

00:32:06.478 --> 00:32:07.689 dramatically over the years.

NOTE Confidence: 0.82274705

00:32:07.690 --> 00:32:09.580 It's a very robust, busy clinic.

NOTE Confidence: 0.82274705

00:32:09.580 --> 00:32:12.196 Some days we see up to 50 patients.

NOTE Confidence: 0.82274705

00:32:12.200 --> 00:32:14.568 And I just have a great team of

NOTE Confidence: 0.82274705

00:32:14.568 --> 00:32:16.511 nurses residents as well as research

NOTE Confidence: 0.82274705

00:32:16.511 --> 00:32:18.982 fellows and and support from the Yale

NOTE Confidence: 0.82274705

00:32:18.982 --> 00:32:20.906 Center for Clinical Investigation.

NOTE Confidence: 0.82274705

00:32:20.910 --> 00:32:22.860 So the field of supportive Uncle

NOTE Confidence: 0.82274705

00:32:22.860 --> 00:32:24.160 Dermatology really blossomed in

NOTE Confidence: 0.82274705

00:32:24.213 --> 00:32:26.306 the 1990s with the advent of many

NOTE Confidence: 0.82274705

00:32:26.306 --> 00:32:27.820 different targeted kinase inhibitors,

NOTE Confidence: 0.82274705

00:32:27.820 --> 00:32:29.704 which skin toxicities were so common

NOTE Confidence: 0.82274705

00:32:29.704 --> 00:32:31.694 in almost the majority of patients

NOTE Confidence: 0.82274705

00:32:31.694 --> 00:32:33.394 and it really encompasses many

NOTE Confidence: 0.82274705

00:32:33.394 --> 00:32:35.060 different things that we service,

NOTE Confidence: 0.82274705

00:32:35.060 --> 00:32:36.860 so there's definitely all the toxicities

NOTE Confidence: 0.82274705

00:32:36.860 --> 00:32:39.330 that we see from the systemic therapies,

NOTE Confidence: 0.82274705

00:32:39.330 --> 00:32:39.996 radiation therapies,

NOTE Confidence: 0.82274705

00:32:39.996 --> 00:32:41.994 graft versus host disease as well

NOTE Confidence: 0.82274705

00:32:41.994 --> 00:32:43.280 as complications from cancer.

NOTE Confidence: 0.82274705

00:32:43.280 --> 00:32:45.260 Going to the skin with metastases,

NOTE Confidence: 0.82274705

00:32:45.260 --> 00:32:47.640 but there's really a lot of other

NOTE Confidence: 0.82274705

00:32:47.640 --> 00:32:49.356 indirect complications that we treat

NOTE Confidence: 0.82274705

00:32:49.356 --> 00:32:51.276 in clinic and that includes paranoia.

NOTE Confidence: 0.82274705

00:32:51.280 --> 00:32:52.724 Plastic disease, infectious complications,

NOTE Confidence: 0.82274705

00:32:52.724 --> 00:32:54.529 especially in patients who are

NOTE Confidence: 0.82274705

00:32:54.529 --> 00:32:56.317 immuno suppressed as well as being

NOTE Confidence: 0.82274705

00:32:56.317 --> 00:32:57.692 part of the survivorship program.

NOTE Confidence: 0.82274705

00:32:57.700 --> 00:32:59.305 For many patients who have

NOTE Confidence: 0.82274705

00:32:59.305 --> 00:33:00.268 survived cancer now,

NOTE Confidence: 0.82274705

00:33:00.270 --> 00:33:02.140 an increased risk for developing

NOTE Confidence: 0.82274705

00:33:02.140 --> 00:33:03.636 cutaneous carcinogenesis and then

NOTE Confidence: 0.82274705

00:33:03.636 --> 00:33:05.737 also part of the umbrella is that

NOTE Confidence: 0.82274705

00:33:05.737 --> 00:33:07.329 the Melanoma program I'm part of.

NOTE Confidence: 0.82274705

00:33:07.330 --> 00:33:09.376 It falls under the umbrella of

NOTE Confidence: 0.82274705

00:33:09.376 --> 00:33:11.478 Uncle Dermatology and so a lot of

NOTE Confidence: 0.82274705

00:33:11.478 --> 00:33:13.493 what I do is also high risk in

NOTE Confidence: 0.82274705

00:33:13.493 --> 00:33:15.418 cancer screening to diagnose and

NOTE Confidence: 0.82274705

00:33:15.418 --> 00:33:17.732 treat many different types of skin

NOTE Confidence: 0.82274705

00:33:17.732 --> 00:33:19.662 cancers and also collaborate with

NOTE Confidence: 0.82274705

00:33:19.662 --> 00:33:21.685 the cancer genetics program to

NOTE Confidence: 0.82274705

00:33:21.685 --> 00:33:23.285 obtain tissue for genetics.

NOTE Confidence: 0.82274705

00:33:23.290 --> 00:33:25.551 So wanted to start by discussing the

NOTE Confidence: 0.82274705

00:33:25.551 --> 00:33:27.530 cutaneous toxicities are not just cosmetic.

NOTE Confidence: 0.82274705

00:33:27.530 --> 00:33:29.240 These are really important issues

NOTE Confidence: 0.82274705

00:33:29.240 --> 00:33:30.608 that impact patients quality

NOTE Confidence: 0.82274705

00:33:30.608 --> 00:33:32.497 of life and there's been many

NOTE Confidence: 0.82274705

00:33:32.497 --> 00:33:34.377 studies over the years looking at

NOTE Confidence: 0.82274705

00:33:34.377 --> 00:33:35.997 validated quality of life surveys.

NOTE Confidence: 0.82274705

00:33:36.000 --> 00:33:36.315 Anan.

NOTE Confidence: 0.82274705

00:33:36.315 --> 00:33:38.520 It's just so so common for these

NOTE Confidence: 0.82274705

00:33:38.520 --> 00:33:40.556 toxicities to to impact in both

NOTE Confidence: 0.82274705

00:33:40.556 --> 00:33:42.560 physical as well as emotional domains

NOTE Confidence: 0.82274705

00:33:42.621 --> 00:33:44.826 and so one interesting concept is that

NOTE Confidence: 0.82274705

00:33:44.826 --> 00:33:46.761 women seem to be affected greater

NOTE Confidence: 0.82274705

00:33:46.761 --> 00:33:49.050 than men in terms of their quality

NOTE Confidence: 0.82286793

00:33:49.114 --> 00:33:50.896 of life and it's probably because

NOTE Confidence: 0.82286793

00:33:50.896 --> 00:33:52.870 of the types of regiments they

NOTE Confidence: 0.82286793

00:33:52.870 --> 00:33:54.685 did receive for breast and.

NOTE Confidence: 0.82286793

00:33:54.690 --> 00:33:56.050 Other gynecological cancers which

NOTE Confidence: 0.82286793

00:33:56.050 --> 00:33:58.450 frequently impact the here in the nails,

NOTE Confidence: 0.82286793

00:33:58.450 --> 00:34:01.186 and so this can affect women's self image,

NOTE Confidence: 0.82286793

00:34:01.190 --> 00:34:01.872 cultural identity,

NOTE Confidence: 0.82286793

00:34:01.872 --> 00:34:03.918 sexuality as well as mental health.

NOTE Confidence: 0.82286793

00:34:03.920 --> 00:34:05.544 Feelings of depression, anxiety,

NOTE Confidence: 0.82286793

00:34:05.544 --> 00:34:08.810 and a loss of control over their body.

NOTE Confidence: 0.82286793

00:34:08.810 --> 00:34:09.719 The hallmark examples

NOTE Confidence: 0.82286793

00:34:09.719 --> 00:34:10.628 chemotherapy induced alopecia,

NOTE Confidence: 0.82286793

00:34:10.630 --> 00:34:12.744 which we see from the cytotoxic agents,

NOTE Confidence: 0.82286793

00:34:12.750 --> 00:34:14.568 in particular an one homework study,

NOTE Confidence: 0.82286793

00:34:14.570 --> 00:34:16.698 showed that almost 60% of women with

NOTE Confidence: 0.82286793

00:34:16.698 --> 00:34:18.287 breast cancer preparing for chemo

NOTE Confidence: 0.82286793

00:34:18.287 --> 00:34:20.141 considered this to be the worst

NOTE Confidence: 0.82286793

00:34:20.141 --> 00:34:21.347 possible associated side effect

NOTE Confidence: 0.82286793

00:34:21.347 --> 00:34:22.746 and almost 10% even considered

NOTE Confidence: 0.82286793

00:34:22.746 --> 00:34:24.564 declining treatment in fear of it.

NOTE Confidence: 0.82286793

00:34:24.570 --> 00:34:25.778 So these are real,

NOTE Confidence: 0.82286793

00:34:25.778 --> 00:34:27.288 very real and important issues,

NOTE Confidence: 0.82286793

00:34:27.290 --> 00:34:29.348 and there's been so many other studies

NOTE Confidence: 0.82286793

00:34:29.348 --> 00:34:31.229 looking at the acne acne reform,

NOTE Confidence: 0.82286793

00:34:31.230 --> 00:34:32.442 ranch hand, foot rashes,

NOTE Confidence: 0.82286793

00:34:32.442 --> 00:34:33.989 nail changes in mucus, itis,

NOTE Confidence: 0.82286793

00:34:33.989 --> 00:34:36.292 all of which I'm going to discuss

NOTE Confidence: 0.82286793

00:34:36.292 --> 00:34:38.876 in which can impact quality of life.

NOTE Confidence: 0.82286793

00:34:38.880 --> 00:34:41.136 So the study on the left kind of

NOTE Confidence: 0.82286793

00:34:41.136 --> 00:34:42.922 highlights an important concept that

NOTE Confidence: 0.82286793

00:34:42.922 --> 00:34:45.624 it's not just those main toxicities that

NOTE Confidence: 0.82286793

00:34:45.691 --> 00:34:47.899 can impact patients quality of life.

NOTE Confidence: 0.82286793

00:34:47.900 --> 00:34:49.874 In this study of targeted agents

NOTE Confidence: 0.82286793

00:34:49.874 --> 00:34:51.720 in breast and colorectal cancers,

NOTE Confidence: 0.82286793

00:34:51.720 --> 00:34:53.796 you'll see that things like itching,

NOTE Confidence: 0.82286793

00:34:53.800 --> 00:34:56.229 dryness of the skin, easy bruise ability,

NOTE Confidence: 0.82286793

00:34:56.230 --> 00:34:56.976 pigmentary changes,

NOTE Confidence: 0.82286793

00:34:56.976 --> 00:34:59.214 they can all be associated with

NOTE Confidence: 0.82286793

00:34:59.214 --> 00:35:01.527 with poor quality of life and the

NOTE Confidence: 0.82286793

00:35:01.527 --> 00:35:03.798 study on the right looked at the

NOTE Confidence: 0.82286793

00:35:03.798 --> 00:35:05.573 different types of chemotherapy and

NOTE Confidence: 0.82286793

00:35:05.573 --> 00:35:07.744 how they impact quality of life.

NOTE Confidence: 0.82286793

00:35:07.744 --> 00:35:08.848 And not surprisingly.

NOTE Confidence: 0.82286793

00:35:08.850 --> 00:35:10.968 A lot of the more novel,

NOTE Confidence: 0.82286793

00:35:10.970 --> 00:35:11.680 targeted therapies,

NOTE Confidence: 0.82286793

00:35:11.680 --> 00:35:13.100 especially the EGFR inhibitors,

NOTE Confidence: 0.82286793

00:35:13.100 --> 00:35:14.865 were associated with an increased

NOTE Confidence: 0.82286793

00:35:14.865 --> 00:35:16.277 number of skin toxicities,

NOTE Confidence: 0.82286793

00:35:16.280 --> 00:35:18.566 but also those which impact quality

NOTE Confidence: 0.82286793

00:35:18.566 --> 00:35:21.802 of life greater than some of the

NOTE Confidence: 0.82286793

00:35:21.802 --> 00:35:23.437 traditional chemotherapeutic agents.

NOTE Confidence: 0.82286793

00:35:23.440 --> 00:35:23.864 Unfortunately,

NOTE Confidence: 0.82286793

00:35:23.864 --> 00:35:25.984 there's mounting data showing that

NOTE Confidence: 0.82286793

00:35:25.984 --> 00:35:27.256 early dermatologic intervention

NOTE Confidence: 0.82286793

00:35:27.256 --> 00:35:28.980 can really make a difference,

NOTE Confidence: 0.82286793

00:35:28.980 --> 00:35:30.985 and so Uncle dermatology programs

NOTE Confidence: 0.82286793

00:35:30.985 --> 00:35:33.801 have been showing up at most of

NOTE Confidence: 0.82286793

00:35:33.801 --> 00:35:35.631 the premier cancer centers in

NOTE Confidence: 0.82286793

00:35:35.631 --> 00:35:37.300 the States and abroad,

NOTE Confidence: 0.82286793

00:35:37.300 --> 00:35:39.860 and one study from MSK show that with

NOTE Confidence: 0.82286793

00:35:39.860 --> 00:35:42.050 outpatient Uncle dermatologic involvement,

NOTE Confidence: 0.82286793

00:35:42.050 --> 00:35:44.140 patients on immunotherapy were less

NOTE Confidence: 0.82286793

00:35:44.140 --> 00:35:46.230 likely to have interrupted treatment

NOTE Confidence: 0.82286793

00:35:46.294 --> 00:35:48.390 5% versus 30% to those managed

NOTE Confidence: 0.82286793

00:35:48.390 --> 00:35:49.578 without dermatologic intervention.

NOTE Confidence: 0.82286793

00:35:49.580 --> 00:35:51.998 In a recent study by the

NOTE Confidence: 0.82286793

00:35:51.998 --> 00:35:53.610 Harvard Group similarly showed.

NOTE Confidence: 0.82286793

00:35:53.610 --> 00:35:55.030 The inpatient konsult can also

NOTE Confidence: 0.82286793

00:35:55.030 --> 00:35:56.450 decrease the chance of patients

NOTE Confidence: 0.82286793

00:35:56.496 --> 00:35:58.168 receiving systemic immune suppression

NOTE Confidence: 0.82286793

00:35:58.168 --> 00:35:59.840 and immune therapy discontinuation.

NOTE Confidence: 0.82286793

00:35:59.840 --> 00:36:00.185 Now,

NOTE Confidence: 0.82286793

00:36:00.185 --> 00:36:02.255 we haven't performed a comparative study.

NOTE Confidence: 0.82286793

00:36:02.260 --> 00:36:04.060 We did perform a very large

NOTE Confidence: 0.82286793

00:36:04.060 --> 00:36:05.751 study recently that was published

NOTE Confidence: 0.82286793

00:36:05.751 --> 00:36:07.447 of over 100 immunotherapy.

NOTE Confidence: 0.82286793

00:36:07.450 --> 00:36:10.555 Rash is 1/4 of which presented to my clinic,

NOTE Confidence: 0.82286793

00:36:10.560 --> 00:36:12.290 often with disruption of immunotherapy.

NOTE Confidence: 0.82286793

00:36:12.290 --> 00:36:14.020 But with early dermatologic intervention,

NOTE Confidence: 0.82286793

00:36:14.020 --> 00:36:15.868 over 90% of these patients were

NOTE Confidence: 0.82286793

00:36:15.868 --> 00:36:18.180 able to remain on their treatment,

NOTE Confidence: 0.82286793

00:36:18.180 --> 00:36:21.456 so I think these numbers are compelling.

NOTE Confidence: 0.82286793

00:36:21.460 --> 00:36:23.002 So wanted to start by focusing

NOTE Confidence: 0.82286793

00:36:23.002 --> 00:36:24.810 on some of the toxicities that

NOTE Confidence: 0.82286793

00:36:24.810 --> 00:36:26.605 I see from targeted therapy.

NOTE Confidence: 0.82286793

00:36:26.610 --> 00:36:28.308 I mean there's so many different

NOTE Confidence: 0.82286793

00:36:28.308 --> 00:36:29.940 types of agents to discuss,

NOTE Confidence: 0.82286793

00:36:29.940 --> 00:36:31.686 I think I'm just going to

NOTE Confidence: 0.82286793

00:36:31.686 --> 00:36:33.580 review some of the main ones.

NOTE Confidence: 0.82286793

00:36:33.580 --> 00:36:35.596 In the interest of time so the EGFR

NOTE Confidence: 0.82286793

00:36:35.596 --> 00:36:37.922 inhibitors are a class that are commonly

NOTE Confidence: 0.82286793

00:36:37.922 --> 00:36:39.334 associated with cutaneous toxicities.

NOTE Confidence: 0.82286793

00:36:39.340 --> 00:36:40.004 Not surprisingly,

NOTE Confidence: 0.82286793

00:36:40.004 --> 00:36:41.664 as the epidermal growth factor

NOTE Confidence: 0.82286793

00:36:41.664 --> 00:36:43.280 receptor is expressed in the skin,

NOTE Confidence: 0.8393097

00:36:43.280 --> 00:36:45.314 hair and nails, and really important

NOTE Confidence: 0.8393097

00:36:45.314 --> 00:36:47.434 for homeostasis and some of the

NOTE Confidence: 0.8393097

00:36:47.434 --> 00:36:49.184 monoclonal antibodies likes to talk

NOTE Confidence: 0.8393097

00:36:49.184 --> 00:36:51.115 some mad panitumumab as well as

NOTE Confidence: 0.8393097

00:36:51.115 --> 00:36:52.747 the 1st and 2nd generation drugs.

NOTE Confidence: 0.8393097

00:36:52.750 --> 00:36:53.930 Presents with cutaneous toxicities

NOTE Confidence: 0.8393097

00:36:53.930 --> 00:36:55.405 in the majority of cases.

NOTE Confidence: 0.8393097

00:36:55.410 --> 00:36:56.610 Fortunately, the third generation

NOTE Confidence: 0.8393097

00:36:56.610 --> 00:36:58.110 drugs like OC murdered him

NOTE Confidence: 0.8393097

00:36:58.110 --> 00:36:59.537 for a lung cancer patients.

NOTE Confidence: 0.8393097

00:36:59.540 --> 00:37:01.598 They don't seem to get the rest,

NOTE Confidence: 0.8393097

00:37:01.600 --> 00:37:03.080 the rest nearly as often,

NOTE Confidence: 0.8393097

00:37:03.080 --> 00:37:04.308 probably less than 30%,

NOTE Confidence: 0.8393097

00:37:04.308 --> 00:37:06.150 and so the most common toxicity

NOTE Confidence: 0.8393097

00:37:06.213 --> 00:37:07.857 that we see is the papulopustular

NOTE Confidence: 0.8393097

00:37:07.857 --> 00:37:09.569 for the acne or form rash,

NOTE Confidence: 0.8393097

00:37:09.570 --> 00:37:11.628 and this usually manifests on patients face,

NOTE Confidence: 0.8393097

00:37:11.630 --> 00:37:12.750 scalp, chest and back.

NOTE Confidence: 0.8393097

00:37:12.750 --> 00:37:14.150 Although it could be widespread

NOTE Confidence: 0.8393097

00:37:14.150 --> 00:37:15.699 and one common misconception is

NOTE Confidence: 0.8393097

00:37:15.699 --> 00:37:17.523 that it's just a sterile technique.

NOTE Confidence: 0.8393097

00:37:17.530 --> 00:37:19.300 Reform drug eruption, which is true.

NOTE Confidence: 0.8393097

00:37:19.300 --> 00:37:19.615 However,

NOTE Confidence: 0.8393097

00:37:19.615 --> 00:37:22.135 I find a large percentage of these patients.

NOTE Confidence: 0.8393097

00:37:22.140 --> 00:37:24.457 Especially when they get to higher grades

NOTE Confidence: 0.8393097

00:37:24.457 --> 00:37:26.080 often have coinfection with staff.

NOTE Confidence: 0.8393097

00:37:26.080 --> 00:37:27.720 Both M RSA an MSA,

NOTE Confidence: 0.8393097

00:37:27.720 --> 00:37:29.688 so that's a good therapeutic Pearl

NOTE Confidence: 0.8393097

00:37:29.688 --> 00:37:31.700 to obtain wound cultures and hear

NOTE Confidence: 0.8393097

00:37:31.700 --> 00:37:33.620 examples of the Packers and pustules.

NOTE Confidence: 0.8393097

00:37:33.620 --> 00:37:35.588 Note all this year is crusting.

NOTE Confidence: 0.8393097

00:37:35.590 --> 00:37:38.206 It was all in petition eyes with staff.

NOTE Confidence: 0.8393097

00:37:38.210 --> 00:37:39.710 Oreius is a more typical scenario

NOTE Confidence: 0.8393097

00:37:39.710 --> 00:37:41.970 in one of the more robust severe

NOTE Confidence: 0.8393097

00:37:41.970 --> 00:37:43.570 toxicities that might require

NOTE Confidence: 0.8393097

00:37:43.570 --> 00:37:44.770 more aggressive treatment,

NOTE Confidence: 0.8393097

00:37:44.770 --> 00:37:45.763 which I'll discuss.

NOTE Confidence: 0.8393097

00:37:45.763 --> 00:37:47.749 We see lots of nail infections

NOTE Confidence: 0.8393097

00:37:47.749 --> 00:37:49.207 paronychium and because of the

NOTE Confidence: 0.8393097

00:37:49.207 --> 00:37:50.809 piercing of the nail plate into

NOTE Confidence: 0.8393097

00:37:50.867 --> 00:37:52.737 the hyponychium patients can get

NOTE Confidence: 0.8393097

00:37:52.737 --> 00:37:54.233 this friable granulation tissue

NOTE Confidence: 0.8393097

00:37:54.233 --> 00:37:55.582 known as pyogenic granulomas.

NOTE Confidence: 0.8393097

00:37:55.582 --> 00:37:57.202 These can be exquisitely tender

NOTE Confidence: 0.8393097

00:37:57.202 --> 00:37:58.944 and painful and definitely impacts

NOTE Confidence: 0.8393097

00:37:58.944 --> 00:38:00.328 patients quality of lights.

NOTE Confidence: 0.8393097

00:38:00.330 --> 00:38:02.298 It's not uncommon to see her

NOTE Confidence: 0.8393097

00:38:02.298 --> 00:38:02.954 growth abnormalities,

NOTE Confidence: 0.8393097

00:38:02.960 --> 00:38:03.911 including elongated eyelashes.

NOTE Confidence: 0.8393097

00:38:03.911 --> 00:38:05.813 Some patients have a hard time

NOTE Confidence: 0.8393097

00:38:05.813 --> 00:38:06.910 trimming their eyelashes,

NOTE Confidence: 0.8393097

00:38:06.910 --> 00:38:08.222 which are curving inward

NOTE Confidence: 0.8393097

00:38:08.222 --> 00:38:09.534 and irritating their eyes,

NOTE Confidence: 0.8393097

00:38:09.540 --> 00:38:11.586 so they'll just see me analysis

NOTE Confidence: 0.8393097

00:38:11.586 --> 00:38:13.373 them with with cutting their

NOTE Confidence: 0.8393097

00:38:13.373 --> 00:38:15.893 eyelashes we see lots of dryness and

NOTE Confidence: 0.8393097

00:38:15.893 --> 00:38:17.750 painful cracks and fissures too.

NOTE Confidence: 0.8393097

00:38:17.750 --> 00:38:19.330 There is an example of,

NOTE Confidence: 0.8393097

00:38:19.330 --> 00:38:21.058 you know a patient who presented

NOTE Confidence: 0.8393097

00:38:21.058 --> 00:38:23.288 with a neck near former option which

NOTE Confidence: 0.8393097

00:38:23.288 --> 00:38:25.322 was in petition eyes with staff.

NOTE Confidence: 0.8393097

00:38:25.330 --> 00:38:27.226 She responded quite well to Doxie,

NOTE Confidence: 0.8393097

00:38:27.230 --> 00:38:28.494 cyclin topical steroid ointments,

NOTE Confidence: 0.8393097

00:38:28.494 --> 00:38:29.126 antibiotic ointments.

NOTE Confidence: 0.8393097

00:38:29.130 --> 00:38:31.069 And I'm a big fan of antiseptic

NOTE Confidence: 0.8393097

00:38:31.069 --> 00:38:32.725 soaks like aluminum acetate removed

NOTE Confidence: 0.8393097

00:38:32.725 --> 00:38:33.868 a serious crusting.

NOTE Confidence: 0.8393097

00:38:33.870 --> 00:38:35.760 Here's another example of a patient.

NOTE Confidence: 0.8393097

00:38:35.760 --> 00:38:37.380 Also recently from the Lung Cancer

NOTE Confidence: 0.8393097

00:38:37.380 --> 00:38:39.441 Group who also had quite a severe

NOTE Confidence: 0.8393097

00:38:39.441 --> 00:38:40.991 acne deformed mesh occasionally in

NOTE Confidence: 0.8393097

00:38:40.991 --> 00:38:42.756 very severe circumstances there can

NOTE Confidence: 0.8393097

00:38:42.756 --> 00:38:44.928 actually be associated alopecia as well.

NOTE Confidence: 0.8393097

00:38:44.930 --> 00:38:46.505 She responded very well to

NOTE Confidence: 0.8393097

00:38:46.505 --> 00:38:47.135 dermatologic intervention.

NOTE Confidence: 0.8393097

00:38:47.140 --> 00:38:48.840 I wanted to highlight that.

NOTE Confidence: 0.8393097

00:38:48.840 --> 00:38:50.440 While the acne reformers typically

NOTE Confidence: 0.8393097

00:38:50.440 --> 00:38:52.040 presents during the first few

NOTE Confidence: 0.8393097

00:38:52.098 --> 00:38:53.891 weeks on the head, chest and back,

NOTE Confidence: 0.8393097

00:38:53.891 --> 00:38:55.970 we have seen uncommon presentations as well,

NOTE Confidence: 0.8393097

00:38:55.970 --> 00:38:57.740 which are described in the literature

NOTE Confidence: 0.8393097

00:38:57.740 --> 00:38:59.530 and those are prepared drug eruptions

NOTE Confidence: 0.8393097

00:38:59.530 --> 00:39:01.210 which likely fall into the category

NOTE Confidence: 0.8393097

00:39:01.210 --> 00:39:03.098 of the late acne reform toxicity.

NOTE Confidence: 0.8393097

00:39:03.100 --> 00:39:04.580 In these cases usually present

NOTE Confidence: 0.8393097

00:39:04.580 --> 00:39:05.764 many months into treatment,

NOTE Confidence: 0.8393097

00:39:05.770 --> 00:39:07.420 and they often present on the

NOTE Confidence: 0.8393097

00:39:07.420 --> 00:39:09.040 lower extremities in the buttocks,

NOTE Confidence: 0.8393097

00:39:09.040 --> 00:39:11.119 and as you can see with these

NOTE Confidence: 0.8393097

00:39:11.119 --> 00:39:12.010 perperek looking lesions,

NOTE Confidence: 0.8393097

00:39:12.010 --> 00:39:14.015 and they're also frequently Co

NOTE Confidence: 0.8393097

00:39:14.015 --> 00:39:16.650 infected with staff on Moon culture.

NOTE Confidence: 0.8393097

00:39:16.650 --> 00:39:18.673 Here's an example of a patient with

NOTE Confidence: 0.8393097

00:39:18.673 --> 00:39:21.073 head and neck cancer who responded

NOTE Confidence: 0.8393097

00:39:21.073 --> 00:39:22.546 to dermatologic intervention.

NOTE Confidence: 0.8393097

00:39:22.550 --> 00:39:24.517 And here's an example of a patient

NOTE Confidence: 0.8393097

00:39:24.517 --> 00:39:25.360 who has pretty

NOTE Confidence: 0.78627217

00:39:25.417 --> 00:39:27.937 typical pyogenic granuloma with Paronychium,

NOTE Confidence: 0.78627217

00:39:27.940 --> 00:39:29.730 who responded to the topical

NOTE Confidence: 0.78627217

00:39:29.730 --> 00:39:31.162 beta blocker timolol gel.

NOTE Confidence: 0.78627217

00:39:31.170 --> 00:39:33.480 Many of these cases are non responsive

NOTE Confidence: 0.78627217

00:39:33.480 --> 00:39:35.309 to conservative approaches and sometimes

NOTE Confidence: 0.78627217

00:39:35.309 --> 00:39:37.269 procedural intervention may be required,

NOTE Confidence: 0.78627217

00:39:37.270 --> 00:39:40.133 like using silver nitrate to court arise

NOTE Confidence: 0.78627217

00:39:40.133 --> 00:39:42.678 these granulomas or even nail avulsion

NOTE Confidence: 0.78627217

00:39:42.678 --> 00:39:45.590 for the really recalcitrant cases will do.

NOTE Confidence: 0.78627217

00:39:45.590 --> 00:39:47.599 So there's many hot topics around EGFR

NOTE Confidence: 0.78627217

00:39:47.599 --> 00:39:49.641 inhibitors one over the years has been

NOTE Confidence: 0.78627217

00:39:49.641 --> 00:39:51.333 looking at pre emptive versus reactive

NOTE Confidence: 0.78627217

00:39:51.387 --> 00:39:53.199 therapy and there's various phase two

NOTE Confidence: 0.78627217

00:39:53.199 --> 00:39:55.274 trials which have shown that doc see

NOTE Confidence: 0.78627217

00:39:55.274 --> 00:39:56.714 cycling Minocycline with with topical

NOTE Confidence: 0.78627217

00:39:56.714 --> 00:39:58.227 steroids and moisturizers can actually

NOTE Confidence: 0.78627217

00:39:58.227 --> 00:39:59.997 reduce the severity of the rash.

NOTE Confidence: 0.78627217

00:40:00.000 --> 00:40:01.674 The overall incidence is probably not

NOTE Confidence: 0.78627217

00:40:01.674 --> 00:40:03.753 affected and I think the approach towards

NOTE Confidence: 0.78627217

00:40:03.753 --> 00:40:05.874 the rest differs depending on the program.

NOTE Confidence: 0.78627217

00:40:05.880 --> 00:40:08.216 Here they've been looking at lots of new

NOTE Confidence: 0.78627217

00:40:08.216 --> 00:40:09.988 novel approaches for treating the rash,

NOTE Confidence: 0.78627217

00:40:09.990 --> 00:40:11.455 none of which are really

NOTE Confidence: 0.78627217

00:40:11.455 --> 00:40:12.334 gained widespread use.

NOTE Confidence: 0.78627217

00:40:12.340 --> 00:40:14.676 Some of the data is very mixed with

NOTE Confidence: 0.78627217

00:40:14.676 --> 00:40:16.939 these drugs and so we definitely need.

NOTE Confidence: 0.78627217

00:40:16.940 --> 00:40:18.844 New approaches and then I just wanted

NOTE Confidence: 0.78627217

00:40:18.844 --> 00:40:20.844 to briefly mention that there's a few

NOTE Confidence: 0.78627217

00:40:20.844 --> 00:40:22.536 clinical trials which we're doing here.

NOTE Confidence: 0.78627217

00:40:22.540 --> 00:40:24.112 Studying the rash one is currently

NOTE Confidence: 0.78627217

00:40:24.112 --> 00:40:25.485 recruiting and I really appreciate

NOTE Confidence: 0.78627217

00:40:25.485 --> 00:40:27.111 my awesome collaborators in the head

NOTE Confidence: 0.78627217

00:40:27.111 --> 00:40:28.878 and neck and thoracic group which

NOTE Confidence: 0.78627217

00:40:28.878 --> 00:40:30.378 are helping to recruit patients.

NOTE Confidence: 0.78627217

00:40:30.380 --> 00:40:32.258 And that's to better understand the

NOTE Confidence: 0.78627217

00:40:32.258 --> 00:40:34.058 microbiome of the populations or option

NOTE Confidence: 0.78627217

00:40:34.058 --> 00:40:35.780 and see how changes in the microflora

NOTE Confidence: 0.78627217

00:40:35.780 --> 00:40:37.697 can be associated with the severity of

NOTE Confidence: 0.78627217

00:40:37.697 --> 00:40:39.761 the rash and response to rash treatment.

NOTE Confidence: 0.78627217

00:40:39.761 --> 00:40:42.050 And then there's a company that we're

NOTE Confidence: 0.78627217

00:40:42.113 --> 00:40:44.128 working with that's developing a

NOTE Confidence: 0.78627217

00:40:44.128 --> 00:40:46.143 novel probiotic with staff epidermal

NOTE Confidence: 0.78627217

00:40:46.205 --> 00:40:47.921 disappointment to look to see if

NOTE Confidence: 0.78627217

00:40:47.921 --> 00:40:49.716 this is going to reduce secondary

NOTE Confidence: 0.78627217

00:40:49.716 --> 00:40:51.008 infections with staff wareus,

NOTE Confidence: 0.78627217

00:40:51.010 --> 00:40:52.294 which are commonly associated

NOTE Confidence: 0.78627217

00:40:52.294 --> 00:40:53.257 with severe rashes.

NOTE Confidence: 0.78627217

00:40:53.260 --> 00:40:55.654 And so this is in development

NOTE Confidence: 0.78627217

00:40:55.654 --> 00:40:58.699 hoping to do this trial next year.

NOTE Confidence: 0.78627217

00:40:58.700 --> 00:40:59.642 So shifting gears,

NOTE Confidence: 0.78627217

00:40:59.642 --> 00:41:01.212 I wanted to briefly discuss

NOTE Confidence: 0.78627217

00:41:01.212 --> 00:41:02.260 other targeted agents,

NOTE Confidence: 0.78627217

00:41:02.260 --> 00:41:04.325 which we see a lot of toxicities

NOTE Confidence: 0.78627217

00:41:04.325 --> 00:41:06.150 from in the breast group.

NOTE Confidence: 0.78627217

00:41:06.150 --> 00:41:08.040 They heard two inhibitors as well

NOTE Confidence: 0.78627217

00:41:08.040 --> 00:41:10.022 as American hitters used for various

NOTE Confidence: 0.78627217

00:41:10.022 --> 00:41:12.008 cancers can actually share some of

NOTE Confidence: 0.78627217

00:41:12.008 --> 00:41:13.929 the properties of the EGFR inhibitor.

NOTE Confidence: 0.78627217

00:41:13.930 --> 00:41:15.550 Reactions will often see folliculitis,

NOTE Confidence: 0.78627217

00:41:15.550 --> 00:41:17.488 eruptions and acne or form rashes.

NOTE Confidence: 0.78627217

00:41:17.490 --> 00:41:18.020 However,

NOTE Confidence: 0.78627217

00:41:18.020 --> 00:41:21.730 they usually less severe and less frequent.

NOTE Confidence: 0.78627217

00:41:21.730 --> 00:41:23.935 I wanted to talk about another very

NOTE Confidence: 0.78627217

00:41:23.935 --> 00:41:25.516 important toxicity which comes to

NOTE Confidence: 0.78627217

00:41:25.516 --> 00:41:27.250 clinic and that's the hand foot

NOTE Confidence: 0.78627217

00:41:27.250 --> 00:41:27.828 skin reaction.

NOTE Confidence: 0.78627217

00:41:27.830 --> 00:41:29.355 So these usually develop from

NOTE Confidence: 0.78627217

00:41:29.355 --> 00:41:30.575 the anti angiogenesis agents,

NOTE Confidence: 0.78627217

00:41:30.580 --> 00:41:32.589 some of which we just heard about

NOTE Confidence: 0.78627217

00:41:32.589 --> 00:41:34.784 which are used in the paddle cellular

NOTE Confidence: 0.78627217

00:41:34.784 --> 00:41:37.289 carcinoma such as the anti veg F agents.

NOTE Confidence: 0.78627217

00:41:37.290 --> 00:41:39.394 And here's a list of the FDA approved

NOTE Confidence: 0.78627217

00:41:39.394 --> 00:41:41.664 ones and so this seems to be one

NOTE Confidence: 0.78627217

00:41:41.664 --> 00:41:43.594 of those toxicities which just so

NOTE Confidence: 0.78627217

00:41:43.594 --> 00:41:45.826 frequently impacts patients quality of life.

NOTE Confidence: 0.78627217

00:41:45.830 --> 00:41:47.748 They have a hard time being able

NOTE Confidence: 0.78627217

00:41:47.748 --> 00:41:50.098 to work to do their daily routine.

NOTE Confidence: 0.78627217

00:41:50.100 --> 00:41:52.158 It very often impacts their activities

NOTE Confidence: 0.78627217

00:41:52.158 --> 00:41:53.187 of daily living.

NOTE Confidence: 0.78627217

00:41:53.190 --> 00:41:54.690 Patients usually present early on.

NOTE Confidence: 0.78627217

00:41:54.690 --> 00:41:56.741 We just kind of thickening or hyper

NOTE Confidence: 0.78627217

00:41:56.741 --> 00:41:58.589 keratosis of the palms and soles,

NOTE Confidence: 0.78627217

00:41:58.590 --> 00:42:00.690 but then over time they get these

NOTE Confidence: 0.78627217

00:42:00.690 --> 00:42:01.290 very painful.

NOTE Confidence: 0.78627217

00:42:01.290 --> 00:42:01.968 Callous is,

NOTE Confidence: 0.78627217

00:42:01.968 --> 00:42:03.663 sometimes they are inflamed and

NOTE Confidence: 0.78627217

00:42:03.663 --> 00:42:06.122 then in the severe cases we even

NOTE Confidence: 0.78627217

00:42:06.122 --> 00:42:07.837 see blisters develop as well.

NOTE Confidence: 0.7819162

00:42:07.840 --> 00:42:10.689 This rash can be associated with very

NOTE Confidence: 0.7819162

00:42:10.689 --> 00:42:12.417 painful dysaesthesia with sometimes

NOTE Confidence: 0.7819162

00:42:12.417 --> 00:42:14.612 will use gabapentinoids like pre

NOTE Confidence: 0.7819162

00:42:14.612 --> 00:42:16.754 gabelein or gabapentin to help

NOTE Confidence: 0.7819162

00:42:16.754 --> 00:42:18.959 assist with at this stage as well.

NOTE Confidence: 0.7819162

00:42:18.960 --> 00:42:20.855 These drugs also are associated

NOTE Confidence: 0.7819162

00:42:20.855 --> 00:42:23.193 with genital eruptions as well as

NOTE Confidence: 0.7819162

00:42:23.193 --> 00:42:25.078 splinter hemorrhages on the nails.

NOTE Confidence: 0.7819162

00:42:25.080 --> 00:42:27.264 So we don't really have great treatments

NOTE Confidence: 0.7819162

00:42:27.264 --> 00:42:29.966 for the hand foot skin reaction right now.

NOTE Confidence: 0.7819162

00:42:29.970 --> 00:42:31.274 Unfortunately, many patients don't

NOTE Confidence: 0.7819162

00:42:31.274 --> 00:42:33.230 respond to moisturizers and karata lytic,

NOTE Confidence: 0.7819162

00:42:33.230 --> 00:42:34.810 or topical steroid ointments and

NOTE Confidence: 0.7819162

00:42:34.810 --> 00:42:36.820 so dose reduction is often needed.

NOTE Confidence: 0.7819162

00:42:36.820 --> 00:42:39.244 So we're doing a study looking at a

NOTE Confidence: 0.7819162

00:42:39.244 --> 00:42:40.669 novel topical nitroglycerin ointment

NOTE Confidence: 0.7819162

00:42:40.669 --> 00:42:43.308 to treat grade two or grade three

NOTE Confidence: 0.7819162

00:42:43.308 --> 00:42:45.457 hand foot skin rash and the first

NOTE Confidence: 0.7819162

00:42:45.457 --> 00:42:47.904 phase is going to be comparing it to

NOTE Confidence: 0.7819162

00:42:47.904 --> 00:42:49.860 vehicle and then the second phase.

NOTE Confidence: 0.7819162

00:42:49.860 --> 00:42:51.156 Comparing pyren lower percentages

NOTE Confidence: 0.7819162

00:42:51.156 --> 00:42:53.496 and so if you have any patients

NOTE Confidence: 0.7819162

00:42:53.496 --> 00:42:55.524 who present with hand foot skin.

NOTE Confidence: 0.7819162

00:42:55.530 --> 00:42:57.532 On these approved drugs on the left

NOTE Confidence: 0.7819162

00:42:57.532 --> 00:42:59.995 who have great to her Grade 3 and

NOTE Confidence: 0.7819162

00:42:59.995 --> 00:43:01.540 really most patients eventually get

NOTE Confidence: 0.7819162

00:43:01.599 --> 00:43:03.923 to grade 2 because it's almost always

NOTE Confidence: 0.7819162

00:43:03.923 --> 00:43:05.237 interfering with her activities

NOTE Confidence: 0.7819162

00:43:05.237 --> 00:43:06.188 of daily living.

NOTE Confidence: 0.7819162

00:43:06.188 --> 00:43:08.680 Please please I'll refer them to our study.

NOTE Confidence: 0.7819162

00:43:08.680 --> 00:43:11.704 We definitely need to do better

NOTE Confidence: 0.7819162

00:43:11.704 --> 00:43:13.720 in managing this toxicity.

NOTE Confidence: 0.7819162

00:43:13.720 --> 00:43:14.788 In interest of time,

NOTE Confidence: 0.7819162

00:43:14.788 --> 00:43:16.774 I'm just gonna I'm just just briefly

NOTE Confidence: 0.7819162

00:43:16.774 --> 00:43:19.028 highlight that we could spend all day

NOTE Confidence: 0.7819162

00:43:19.028 --> 00:43:20.711 talking about the different targeted

NOTE Confidence: 0.7819162

00:43:20.711 --> 00:43:22.673 agents in the toxicities I see.

NOTE Confidence: 0.7819162

00:43:22.680 --> 00:43:24.843 Here are some examples just to illustrate

NOTE Confidence: 0.7819162

00:43:24.843 --> 00:43:27.317 that really many different classes can do it.

NOTE Confidence: 0.7819162

00:43:27.320 --> 00:43:29.408 Since you were on or Brewton if for

NOTE Confidence: 0.7819162

00:43:29.408 --> 00:43:31.328 CLL often get perperek eruptions,

NOTE Confidence: 0.7819162

00:43:31.330 --> 00:43:32.570 folliculitis patients with breast

NOTE Confidence: 0.7819162

00:43:32.570 --> 00:43:34.424 cancer on PR, 3 kinase inhibitors,

NOTE Confidence: 0.7819162

00:43:34.424 --> 00:43:35.656 and get really terrible.

NOTE Confidence: 0.7819162

00:43:35.660 --> 00:43:36.928 Morbilliform exanthems some requiring

NOTE Confidence: 0.7819162

00:43:36.928 --> 00:43:39.462 the use of Prednisone so wanted to turn

NOTE Confidence: 0.7819162

00:43:39.462 --> 00:43:40.907 now to immune checkpoint inhibitors.

NOTE Confidence: 0.7819162

00:43:40.910 --> 00:43:42.500 Because I think you pennis

NOTE Confidence: 0.7819162

00:43:42.500 --> 00:43:43.772 toxicities are really important.

NOTE Confidence: 0.7819162

00:43:43.780 --> 00:43:46.030 To discuss with this class

NOTE Confidence: 0.7819162

00:43:46.030 --> 00:43:47.830 of cancer cancer therapy.

NOTE Confidence: 0.7819162

00:43:47.830 --> 00:43:49.440 And so all great rash,

NOTE Confidence: 0.7819162

00:43:49.440 --> 00:43:51.360 plus parictis it kind of tally.

NOTE Confidence: 0.7819162

00:43:51.360 --> 00:43:54.223 It all can occur in up to 50% of

NOTE Confidence: 0.7819162

00:43:54.223 --> 00:43:55.981 patients on checkpoint inhibitors at one

NOTE Confidence: 0.7819162

00:43:55.981 --> 00:43:58.098 point in time during their treatment.

NOTE Confidence: 0.7819162

00:43:58.100 --> 00:44:00.050 This is especially true of patients

NOTE Confidence: 0.7819162

00:44:00.050 --> 00:44:01.630 who are on combination CTL,

NOTE Confidence: 0.7819162

00:44:01.630 --> 00:44:03.622 a foreign PD one therapy and the way

NOTE Confidence: 0.7819162

00:44:03.622 --> 00:44:05.619 that I think about the toxicities

NOTE Confidence: 0.7819162

00:44:05.619 --> 00:44:07.414 from the checkpoint inhibitors is

NOTE Confidence: 0.7819162

00:44:07.414 --> 00:44:09.547 a categorized them into those that

NOTE Confidence: 0.7819162

00:44:09.547 --> 00:44:11.902 are the most frequent that we see

NOTE Confidence: 0.7819162

00:44:11.902 --> 00:44:13.507 which are the morbilliform rashes,

NOTE Confidence: 0.7819162

00:44:13.510 --> 00:44:14.608 the lichenoid rash,

NOTE Confidence: 0.7819162

00:44:14.608 --> 00:44:17.597 which I'll discuss a bit more about the

NOTE Confidence: 0.7819162

00:44:17.597 --> 00:44:20.437 exame and the parictis as well as psoriasis.

NOTE Confidence: 0.7819162

00:44:20.440 --> 00:44:22.366 And then there's the whole category

NOTE Confidence: 0.7819162

00:44:22.366 --> 00:44:23.979 of autoimmune disorders which occur

NOTE Confidence: 0.7819162

00:44:23.979 --> 00:44:25.611 as immune related adverse events such

NOTE Confidence: 0.7819162

00:44:25.611 --> 00:44:27.627 as diddle I go and bullous pemphigoid

NOTE Confidence: 0.7819162

00:44:27.627 --> 00:44:29.648 which I'll discuss more about as well.

NOTE Confidence: 0.7819162

00:44:29.648 --> 00:44:30.840 Fortunately, the severe rashes,

NOTE Confidence: 0.7819162

00:44:30.840 --> 00:44:32.320 the life threatening Stevens Johnson

NOTE Confidence: 0.7819162

00:44:32.320 --> 00:44:33.504 ones we've seen them,

NOTE Confidence: 0.7819162

00:44:33.510 --> 00:44:34.398 but they're not.

NOTE Confidence: 0.7819162

00:44:34.398 --> 00:44:35.286 They're not common,

NOTE Confidence: 0.7819162

00:44:35.290 --> 00:44:37.396 and then there's kind of the

NOTE Confidence: 0.7819162

00:44:37.396 --> 00:44:39.266 miscellaneous category of those that

NOTE Confidence: 0.7819162

00:44:39.266 --> 00:44:41.690 are granulomatis like sarcoid for those

NOTE Confidence: 0.7819162

00:44:41.690 --> 00:44:43.779 involving the panniculus or the fassia.

NOTE Confidence: 0.7819162

00:44:43.780 --> 00:44:45.670 So this is actually one of the

NOTE Confidence: 0.7819162

00:44:45.670 --> 00:44:46.860 largest studies out there.

NOTE Confidence: 0.7819162

00:44:46.860 --> 00:44:48.290 Looking at the different branches

NOTE Confidence: 0.7819162

00:44:48.290 --> 00:44:49.998 from in therapy that we published

NOTE Confidence: 0.7819162

00:44:49.998 --> 00:44:51.987 a couple of years ago and it was a

NOTE Confidence: 0.7819162

00:44:52.041 --> 00:44:53.004 retrospective retrospective study

NOTE Confidence: 0.7819162

00:44:53.004 --> 00:44:55.251 of over 100 rashes that we saw

NOTE Confidence: 0.8337146

00:44:55.260 --> 00:44:56.744 in the ankle during clinic and we

NOTE Confidence: 0.8337146

00:44:56.744 --> 00:44:58.836 found is that they really have many

NOTE Confidence: 0.8337146

00:44:58.836 --> 00:45:00.244 different clinical and histopathologic

NOTE Confidence: 0.8337146

00:45:00.244 --> 00:45:02.325 morphologies here and a lot of them

NOTE Confidence: 0.8337146

00:45:02.325 --> 00:45:03.123 resembled idiopathic dermatosis

NOTE Confidence: 0.8337146

00:45:03.123 --> 00:45:04.816 that that we treat in dermatology.

NOTE Confidence: 0.8337146

00:45:04.816 --> 00:45:06.261 For patients who are not

NOTE Confidence: 0.8337146

00:45:06.261 --> 00:45:07.840 on checkpoint inhibitors.

NOTE Confidence: 0.8337146

00:45:07.840 --> 00:45:09.980 If you take a look at the yellow box I

NOTE Confidence: 0.8337146

00:45:10.041 --> 00:45:12.449 highlighted kind of the top five and

NOTE Confidence: 0.8337146

00:45:12.449 --> 00:45:14.385 what's interesting about this is that

NOTE Confidence: 0.8337146

00:45:14.385 --> 00:45:16.359 a lot of these common rashes actually

NOTE Confidence: 0.8337146

00:45:16.360 --> 00:45:17.780 develop many months into therapy.

NOTE Confidence: 0.8337146

00:45:17.780 --> 00:45:19.579 The most common one can be sometimes

NOTE Confidence: 0.8337146

00:45:19.579 --> 00:45:20.900 six months into treatment,

NOTE Confidence: 0.8337146

00:45:20.900 --> 00:45:22.706 and I think that's important because

NOTE Confidence: 0.8337146

00:45:22.706 --> 00:45:24.203 patients don't always realize or

NOTE Confidence: 0.8337146

00:45:24.203 --> 00:45:25.679 put together that their new rashes

NOTE Confidence: 0.8337146

00:45:25.679 --> 00:45:27.150 because of their immune therapy,

NOTE Confidence: 0.8337146

00:45:27.150 --> 00:45:29.182 and in some of the oncologist who are

NOTE Confidence: 0.8337146

00:45:29.182 --> 00:45:30.838 less familiar with these toxicities,

NOTE Confidence: 0.8337146

00:45:30.840 --> 00:45:31.626 also may not.

NOTE Confidence: 0.8337146

00:45:31.626 --> 00:45:33.791 And so I I think that's important to

NOTE Confidence: 0.8337146

00:45:33.791 --> 00:45:35.667 keep in mind that you can definitely

NOTE Confidence: 0.8337146

00:45:35.667 --> 00:45:37.378 get late toxicities to write.

NOTE Confidence: 0.8337146

00:45:37.380 --> 00:45:39.150 This is a very prominent feature.

NOTE Confidence: 0.8337146

00:45:39.150 --> 00:45:40.800 In most of these containers,

NOTE Confidence: 0.8337146

00:45:40.800 --> 00:45:42.152 toxicities fortunately were able

NOTE Confidence: 0.8337146

00:45:42.152 --> 00:45:44.180 to manage these patients in the

NOTE Confidence: 0.8337146

00:45:44.237 --> 00:45:45.397 vast majority of time,

NOTE Confidence: 0.8337146

00:45:45.400 --> 00:45:47.560 topically by 20% of patients required

NOTE Confidence: 0.8337146

00:45:47.560 --> 00:45:49.333 Prednisone because of the severity

NOTE Confidence: 0.8337146

00:45:49.333 --> 00:45:51.326 of the rash and 25% had disruption

NOTE Confidence: 0.8337146

00:45:51.326 --> 00:45:53.294 of immune therapy at some point,

NOTE Confidence: 0.8337146

00:45:53.300 --> 00:45:55.596 sometimes before they saw me in clinic,

NOTE Confidence: 0.8337146

00:45:55.600 --> 00:45:57.568 or sometimes because the rash progressed.

NOTE Confidence: 0.8337146

00:45:57.570 --> 00:45:58.228 But really,

NOTE Confidence: 0.8337146

00:45:58.228 --> 00:45:59.873 the vast majority can remain

NOTE Confidence: 0.8337146

00:45:59.873 --> 00:46:00.860 on immune therapy.

NOTE Confidence: 0.8337146

00:46:00.860 --> 00:46:03.500 It was just the cases of Stevens Johnson,

NOTE Confidence: 0.8337146

00:46:03.500 --> 00:46:05.630 a really bad bullous pemphigoid where

NOTE Confidence: 0.8337146

00:46:05.630 --> 00:46:07.708 immune therapy was discontinued and another

NOTE Confidence: 0.8337146

00:46:07.708 --> 00:46:09.829 important concept here is for the rashes.

NOTE Confidence: 0.8337146

00:46:09.830 --> 00:46:11.070 That do recur after

NOTE Confidence: 0.8337146

00:46:11.070 --> 00:46:12.620 Prednisone or or that persist.

NOTE Confidence: 0.8337146

00:46:12.620 --> 00:46:14.762 Targeting the dermatosis in a more

NOTE Confidence: 0.8337146

00:46:14.762 --> 00:46:16.805 efficient way is probably going to

NOTE Confidence: 0.8337146

00:46:16.805 --> 00:46:18.723 be the future of how these rashes

NOTE Confidence: 0.8337146

00:46:18.723 --> 00:46:21.060 are treated and so we've had a great

NOTE Confidence: 0.8337146

00:46:21.060 --> 00:46:22.880 deal of success using things like

NOTE Confidence: 0.8337146

00:46:22.880 --> 00:46:24.480 asset reading for the psoriasis

NOTE Confidence: 0.8337146

00:46:24.480 --> 00:46:26.311 or lichenoid rash Om Alisme after

NOTE Confidence: 0.8337146

00:46:26.311 --> 00:46:27.731 methotrexate for the Bulls tend

NOTE Confidence: 0.8337146

00:46:27.731 --> 00:46:29.648 to glide and the TNF inhibitors

NOTE Confidence: 0.8337146

00:46:29.648 --> 00:46:30.596 for Stevens Johnson,

NOTE Confidence: 0.8337146

00:46:30.600 --> 00:46:32.770 which is how we treat it typically.

NOTE Confidence: 0.8337146

00:46:32.770 --> 00:46:34.758 More recently for for the cases that

NOTE Confidence: 0.8337146

00:46:34.758 --> 00:46:36.489 are not associated with checkpoint,

NOTE Confidence: 0.8337146

00:46:36.490 --> 00:46:38.548 I wanted to take a moment

NOTE Confidence: 0.8337146

00:46:38.548 --> 00:46:39.920 to discuss that the.

NOTE Confidence: 0.8337146

00:46:39.920 --> 00:46:41.405 What what the lichenoid dermatitis

NOTE Confidence: 0.8337146

00:46:41.405 --> 00:46:43.509 is we throw around the term lichenoid

NOTE Confidence: 0.8337146

00:46:43.509 --> 00:46:45.195 alot in dermatology and I'm not

NOTE Confidence: 0.8337146

00:46:45.195 --> 00:46:47.172 sure if the if our colleagues in

NOTE Confidence: 0.8337146

00:46:47.172 --> 00:46:48.792 meddock or familiar with it and

NOTE Confidence: 0.8337146

00:46:48.792 --> 00:46:50.888 so like in what looks like like in

NOTE Confidence: 0.8337146

00:46:50.888 --> 00:46:52.665 which an Organism that grows on

NOTE Confidence: 0.8337146

00:46:52.665 --> 00:46:54.782 trees kind of scaly and crusty looks

NOTE Confidence: 0.8337146

00:46:54.782 --> 00:46:56.564 kind of like the rash does.

NOTE Confidence: 0.8337146

00:46:56.570 --> 00:46:58.232 And then there's the histologic term

NOTE Confidence: 0.8337146

00:46:58.232 --> 00:46:59.979 of lichenoid dermatitis which is an

NOTE Confidence: 0.8337146

00:46:59.979 --> 00:47:01.449 interface dermatitis with the bandlike

NOTE Confidence: 0.8337146

00:47:01.449 --> 00:47:02.590 infiltrate of lymphocytes ANAN.

NOTE Confidence: 0.8337146

00:47:02.590 --> 00:47:04.708 This is the most common histopathologic

NOTE Confidence: 0.8337146

00:47:04.708 --> 00:47:06.899 finding that we see in the skin.

NOTE Confidence: 0.8337146

00:47:06.900 --> 00:47:08.986 And so the lichenoid rash can occur

NOTE Confidence: 0.8337146

00:47:08.986 --> 00:47:11.739 in up to a third quarter to 1/3 of

NOTE Confidence: 0.8337146

00:47:11.739 --> 00:47:14.628 patients on PD one and PD Wagon one agents.

NOTE Confidence: 0.8337146

00:47:14.630 --> 00:47:17.222 And this is kind of a more severe

NOTE Confidence: 0.8337146

00:47:17.222 --> 00:47:18.718 example highlighting the pink

NOTE Confidence: 0.8337146

00:47:18.718 --> 00:47:20.688 violaceous scaly patches and plaques.

NOTE Confidence: 0.8337146

00:47:20.690 --> 00:47:22.976 Here's a patient who responded to

NOTE Confidence: 0.8337146

00:47:22.976 --> 00:47:24.878 Acitretin were very persistent Palmer

NOTE Confidence: 0.8337146

00:47:24.878 --> 00:47:26.738 planter involvement and he did not

NOTE Confidence: 0.8337146

00:47:26.738 --> 00:47:29.138 do as well with topical steroids or

NOTE Confidence: 0.8337146

00:47:29.138 --> 00:47:31.250 even a short course of Prednisone.

NOTE Confidence: 0.79664147

00:47:31.250 --> 00:47:33.315 I also wanted to highlight that this

NOTE Confidence: 0.79664147

00:47:33.315 --> 00:47:35.279 lichenoid rash can involve the mucosa,

NOTE Confidence: 0.79664147

00:47:35.280 --> 00:47:36.464 and when that occurs,

NOTE Confidence: 0.79664147

00:47:36.464 --> 00:47:38.240 it can really be quite severe

NOTE Confidence: 0.79664147

00:47:38.303 --> 00:47:39.813 with ulcerations on the genitals

NOTE Confidence: 0.79664147

00:47:39.813 --> 00:47:41.790 as well as the oral mucosa.

NOTE Confidence: 0.79664147

00:47:41.790 --> 00:47:43.750 Anan this this this clearly is very

NOTE Confidence: 0.79664147

00:47:43.750 --> 00:47:45.995 painful and we were very low threshold

NOTE Confidence: 0.79664147

00:47:45.995 --> 00:47:47.675 for Prednisone in these cases.

NOTE Confidence: 0.79664147

00:47:47.680 --> 00:47:49.975 Sometimes we try things like

NOTE Confidence: 0.79664147

00:47:49.975 --> 00:47:52.270 hydroxychloroquine in those that persist.

NOTE Confidence: 0.79664147

00:47:52.270 --> 00:47:54.190 So in addition to the lichenoid

NOTE Confidence: 0.79664147

00:47:54.190 --> 00:47:55.470 rash from checkpoint inhibitors,

NOTE Confidence: 0.79664147

00:47:55.470 --> 00:47:57.390 we can also see eczematous presentations.

NOTE Confidence: 0.79664147

00:47:57.390 --> 00:47:58.642 Sorry, acid form presentations.

NOTE Confidence: 0.79664147

00:47:58.642 --> 00:48:00.207 And then there's patients that

NOTE Confidence: 0.79664147

00:48:00.207 --> 00:48:01.862 just have terrible parictis even

NOTE Confidence: 0.79664147

00:48:01.862 --> 00:48:03.150 without an associated rash.

NOTE Confidence: 0.79664147

00:48:03.150 --> 00:48:04.750 So here's a typical scenario

NOTE Confidence: 0.79664147

00:48:04.750 --> 00:48:06.350 of a patient with psoriasis,

NOTE Confidence: 0.79664147

00:48:06.350 --> 00:48:07.630 then goes on checkpoint

NOTE Confidence: 0.79664147

00:48:07.630 --> 00:48:08.910 inhibitor therapy and flares,

NOTE Confidence: 0.79664147

00:48:08.910 --> 00:48:11.150 and she responded very well to phototherapy,

NOTE Confidence: 0.79664147

00:48:11.150 --> 00:48:12.920 which is a really nice non

NOTE Confidence: 0.79664147

00:48:12.920 --> 00:48:14.670 systemic option for these patients.

NOTE Confidence: 0.79664147

00:48:14.670 --> 00:48:16.590 Here's an example of widespread eczema,

NOTE Confidence: 0.79664147

00:48:16.590 --> 00:48:19.110 and here's a patient that I share with

NOTE Confidence: 0.79664147

00:48:19.110 --> 00:48:21.016 Doctor Goldberg who just developed just

NOTE Confidence: 0.79664147

00:48:21.016 --> 00:48:23.310 severe itch and she comes to clinic,

NOTE Confidence: 0.79664147

00:48:23.310 --> 00:48:24.658 covered in bandages and

NOTE Confidence: 0.79664147

00:48:24.658 --> 00:48:26.006 explorations and she eventually.

NOTE Confidence: 0.79664147

00:48:26.010 --> 00:48:27.710 Did somewhat better with pre

NOTE Confidence: 0.79664147

00:48:27.710 --> 00:48:28.730 gabelein and phototherapy,

NOTE Confidence: 0.79664147

00:48:28.730 --> 00:48:30.884 so just highlighting that the different

NOTE Confidence: 0.79664147

00:48:30.884 --> 00:48:32.775 the spectrum of these papulosquamous

NOTE Confidence: 0.79664147

00:48:32.775 --> 00:48:35.505 rash as we call them from dermatology.

NOTE Confidence: 0.79664147

00:48:35.510 --> 00:48:37.596 So both paperboy is one of those

NOTE Confidence: 0.79664147

00:48:37.596 --> 00:48:39.240 rashes which is not common,

NOTE Confidence: 0.79664147

00:48:39.240 --> 00:48:41.165 but it's a very important one because

NOTE Confidence: 0.79664147

00:48:41.165 --> 00:48:43.325 it has a great deal of associated

NOTE Confidence: 0.79664147

00:48:43.325 --> 00:48:45.632 morbidity with it and so for those

NOTE Confidence: 0.79664147

00:48:45.632 --> 00:48:47.327 who aren't familiar with it,

NOTE Confidence: 0.79664147

00:48:47.330 --> 00:48:48.534 it's an autoimmune blistering

NOTE Confidence: 0.79664147

00:48:48.534 --> 00:48:50.687 disease with deposition of IG G and

NOTE Confidence: 0.79664147

00:48:50.687 --> 00:48:52.167 compliment at the dermal epidermal

NOTE Confidence: 0.79664147

00:48:52.167 --> 00:48:54.377 junction is seen here in my patients

NOTE Confidence: 0.79664147

00:48:54.377 --> 00:48:56.002 tissue sample and patients also

NOTE Confidence: 0.79664147

00:48:56.002 --> 00:48:57.545 make autoantibodies against BP 180,

NOTE Confidence: 0.79664147

00:48:57.545 --> 00:48:59.998 so we conducted a study a few years

NOTE Confidence: 0.79664147

00:48:59.998 --> 00:49:01.924 ago at our uncle during clinic

NOTE Confidence: 0.79664147

00:49:01.924 --> 00:49:04.496 and we found that about 1% of the

NOTE Confidence: 0.79664147

00:49:04.496 --> 00:49:05.868 patients on checkpoint inhibitors

NOTE Confidence: 0.79664147

00:49:05.868 --> 00:49:08.118 with PD one or PD wagon one.

NOTE Confidence: 0.79664147

00:49:08.120 --> 00:49:09.680 Based on our pharmacy develop

NOTE Confidence: 0.79664147

00:49:09.680 --> 00:49:11.730 this rash so it's not common,

NOTE Confidence: 0.79664147

00:49:11.730 --> 00:49:14.208 but but it definitely can be quite

NOTE Confidence: 0.79664147

00:49:14.208 --> 00:49:16.073 extensive and the latency is

NOTE Confidence: 0.79664147

00:49:16.073 --> 00:49:18.269 also usually four to six months.

NOTE Confidence: 0.79664147

00:49:18.270 --> 00:49:18.623 Clinically,

NOTE Confidence: 0.79664147

00:49:18.623 --> 00:49:20.388 patients will often present with

NOTE Confidence: 0.79664147

00:49:20.388 --> 00:49:22.092 just worsening queritis even before

NOTE Confidence: 0.79664147

00:49:22.092 --> 00:49:23.060 the onset of rash.

NOTE Confidence: 0.79664147

00:49:23.060 --> 00:49:24.914 Then they get these urticaria lesions

NOTE Confidence: 0.79664147

00:49:24.914 --> 00:49:26.560 with tense vesicles and bullae,

NOTE Confidence: 0.79664147

00:49:26.560 --> 00:49:27.968 which can become eroded,

NOTE Confidence: 0.79664147

00:49:27.968 --> 00:49:30.080 and you can also get mucosal

NOTE Confidence: 0.79664147

00:49:30.150 --> 00:49:31.479 involvement as well.

NOTE Confidence: 0.79664147

00:49:31.480 --> 00:49:33.020 Think about the bullous pemphigoid

NOTE Confidence: 0.79664147

00:49:33.020 --> 00:49:35.627 rash is unlike a lot of the more

NOTE Confidence: 0.79664147

00:49:35.627 --> 00:49:37.307 common exanthems and lichenoid rash.

NOTE Confidence: 0.79664147

00:49:37.310 --> 00:49:38.750 These typically require Prednisone due

NOTE Confidence: 0.79664147

00:49:38.750 --> 00:49:40.668 to the severity of the presentation

NOTE Confidence: 0.79664147

00:49:40.668 --> 00:49:41.518 with blisters.

NOTE Confidence: 0.79664147

00:49:41.520 --> 00:49:43.506 We've also had cases which have

NOTE Confidence: 0.79664147

00:49:43.506 --> 00:49:44.830 persisted even after immunotherapy

NOTE Confidence: 0.79664147

00:49:44.886 --> 00:49:45.738 has been stopped,

NOTE Confidence: 0.79664147

00:49:45.740 --> 00:49:47.678 and even after a Prednisone taper

NOTE Confidence: 0.79664147

00:49:47.678 --> 00:49:48.647 likely do too.

NOTE Confidence: 0.79664147

00:49:48.650 --> 00:49:50.516 I'm just immune activation and so

NOTE Confidence: 0.79664147

00:49:50.516 --> 00:49:52.540 for those cases things like Rituxan,

NOTE Confidence: 0.79664147

00:49:52.540 --> 00:49:53.188 MAB formalism,

NOTE Confidence: 0.79664147

00:49:53.188 --> 00:49:54.808 Maverick dupilumab which are biologics,

NOTE Confidence: 0.79664147

00:49:54.810 --> 00:49:58.688 I'll discuss later might be very helpful.

NOTE Confidence: 0.79664147

00:49:58.690 --> 00:50:00.853 And the one one question about that

NOTE Confidence: 0.79664147

00:50:00.853 --> 00:50:03.954 comes up a lot is when to worry about

NOTE Confidence: 0.79664147

00:50:03.954 --> 00:50:05.960 a typical macular papular example,

NOTE Confidence: 0.79664147

00:50:05.960 --> 00:50:08.030 when should you worry about progression

NOTE Confidence: 0.79664147

00:50:08.030 --> 00:50:09.758 of Stevens, Johnson, and so?

NOTE Confidence: 0.79664147

00:50:09.758 --> 00:50:12.180 My advice with these cases is obviously,

NOTE Confidence: 0.79664147

00:50:12.180 --> 00:50:12.810 you know,

NOTE Confidence: 0.79664147

00:50:12.810 --> 00:50:15.015 you can grade it based on the

NOTE Confidence: 0.79664147

00:50:15.015 --> 00:50:16.340 body surface area,

NOTE Confidence: 0.79664147

00:50:16.340 --> 00:50:20.228 but when the rash is pink and pure Riddick.

NOTE Confidence: 0.79727185

00:50:20.230 --> 00:50:22.498 It's very reassuring when the rash

NOTE Confidence: 0.79727185

00:50:22.498 --> 00:50:25.230 starts to become this more dusky color.

NOTE Confidence: 0.79727185

00:50:25.230 --> 00:50:27.078 And painful. That's when you really

NOTE Confidence: 0.79727185

00:50:27.078 --> 00:50:29.418 have to worry about a progression to

NOTE Confidence: 0.79727185

00:50:29.418 --> 00:50:31.168 a more severe cutaneous reaction,

NOTE Confidence: 0.79727185

00:50:31.170 --> 00:50:33.066 especially if there is any coastal

NOTE Confidence: 0.79727185

00:50:33.066 --> 00:50:35.287 involvement or blisters or any systemic signs

NOTE Confidence: 0.79727185

00:50:35.287 --> 00:50:37.387 or symptoms really have a low threshold

NOTE Confidence: 0.79727185

00:50:37.448 --> 00:50:39.418 for Prednisone and watching carefully,

NOTE Confidence: 0.79727185

00:50:39.420 --> 00:50:41.185 we've definitely seen these very

NOTE Confidence: 0.79727185

00:50:41.185 --> 00:50:42.950 atypical scenarios where an example

NOTE Confidence: 0.79727185

00:50:43.002 --> 00:50:44.838 just progressed and slowly over the

NOTE Confidence: 0.79727185

00:50:44.838 --> 00:50:46.752 course of several weeks progressed to

NOTE Confidence: 0.79727185

00:50:46.752 --> 00:50:48.660 a Stevens Johnson type of scenario.

NOTE Confidence: 0.79727185

00:50:48.660 --> 00:50:50.310 And that's been that's been

NOTE Confidence: 0.79727185

00:50:50.310 --> 00:50:51.630 published with checkpoint inhibitors,

NOTE Confidence: 0.79727185

00:50:51.630 --> 00:50:53.280 which is actually very different

NOTE Confidence: 0.79727185

00:50:53.280 --> 00:50:54.270 than classical Stevens.

NOTE Confidence: 0.79727185

00:50:54.270 --> 00:50:56.040 Johnson would just takes off.

NOTE Confidence: 0.79727185

00:50:56.040 --> 00:50:57.965 At a very rapid tempo nears examples

NOTE Confidence: 0.79727185

00:50:57.965 --> 00:50:59.420 of examples that we've seen,

NOTE Confidence: 0.79727185

00:50:59.420 --> 00:51:01.112 as well as Stevens Johnson from

NOTE Confidence: 0.79727185

00:51:01.112 --> 00:51:01.676 Hippie Niveau.

NOTE Confidence: 0.8119258

00:51:03.830 --> 00:51:05.636 An I think the future direction

NOTE Confidence: 0.8119258

00:51:05.636 --> 00:51:07.612 for it for treating these cutaneous

NOTE Confidence: 0.8119258

00:51:07.612 --> 00:51:10.090 toxicities is is looking at a more

NOTE Confidence: 0.8119258

00:51:10.090 --> 00:51:11.810 efficient way to shut them down.

NOTE Confidence: 0.8119258

00:51:11.810 --> 00:51:13.082 Basically treating the dermatosis

NOTE Confidence: 0.8119258

00:51:13.082 --> 00:51:14.672 in the most targeted approach.

NOTE Confidence: 0.8119258

00:51:14.680 --> 00:51:16.290 There's definitely a good amount

NOTE Confidence: 0.8119258

00:51:16.290 --> 00:51:17.900 of data suggesting that the

NOTE Confidence: 0.8119258

00:51:17.956 --> 00:51:19.456 use of systemic steroids is,

NOTE Confidence: 0.8119258

00:51:19.460 --> 00:51:20.560 in general, fine, inappropriate,

NOTE Confidence: 0.8119258

00:51:20.560 --> 00:51:22.629 and it has has not been shown

NOTE Confidence: 0.8119258

00:51:22.629 --> 00:51:24.434 to impair tumor response when

NOTE Confidence: 0.8119258

00:51:24.434 --> 00:51:25.517 treating cutaneous toxicities,

NOTE Confidence: 0.8119258

00:51:25.520 --> 00:51:27.110 but for those cases that

NOTE Confidence: 0.8119258

00:51:27.110 --> 00:51:28.064 are just recalcitrant,

NOTE Confidence: 0.8119258

00:51:28.070 --> 00:51:29.888 I think we're going to find

NOTE Confidence: 0.8119258

00:51:29.888 --> 00:51:32.188 the use of anti aisle 413 drugs

NOTE Confidence: 0.8119258

00:51:32.188 --> 00:51:34.554 like the pillow mab or anti Ige.

NOTE Confidence: 0.8119258

00:51:34.560 --> 00:51:36.215 He antibodies like oh Melissa

NOTE Confidence: 0.8119258

00:51:36.215 --> 00:51:37.208 Matthews more frequently.

NOTE Confidence: 0.8119258

00:51:37.210 --> 00:51:39.358 We already have plenty of biologics

NOTE Confidence: 0.8119258

00:51:39.358 --> 00:51:41.758 used in psoriasis and I think there

NOTE Confidence: 0.8119258

00:51:41.758 --> 00:51:43.865 is mounting data in case series of

NOTE Confidence: 0.8119258

00:51:43.935 --> 00:51:45.855 these being used for checkpoint rash

NOTE Confidence: 0.8119258

00:51:45.855 --> 00:51:48.034 as well as TNS for Stevens Johnson.

NOTE Confidence: 0.8119258

00:51:48.034 --> 00:51:50.120 Here's an example of a patient I

NOTE Confidence: 0.8119258

00:51:50.176 --> 00:51:52.535 share with Sarah Weiss who had bullous

NOTE Confidence: 0.8119258

00:51:52.535 --> 00:51:54.312 pemphigoid which kept flaring when

NOTE Confidence: 0.8119258

00:51:54.312 --> 00:51:56.077 we slowly taper the Prednisone.

NOTE Confidence: 0.8119258

00:51:56.080 --> 00:51:56.544 Eventually,

NOTE Confidence: 0.8119258

00:51:56.544 --> 00:51:58.400 with the concomitant administration

NOTE Confidence: 0.8119258

00:51:58.400 --> 00:52:01.499 of Melissa Map were able to get

NOTE Confidence: 0.8119258

00:52:01.499 --> 00:52:02.915 the patient off criticism.

NOTE Confidence: 0.8119258

00:52:02.920 --> 00:52:04.816 And so in the final moments,

NOTE Confidence: 0.8119258

00:52:04.820 --> 00:52:06.716 I just wanted to highlight it's

NOTE Confidence: 0.8119258

00:52:06.716 --> 00:52:07.980 not the forgotten child,

NOTE Confidence: 0.8119258

00:52:07.980 --> 00:52:09.876 because we see lots of toxicities

NOTE Confidence: 0.8119258

00:52:09.876 --> 00:52:11.140 from the cytotoxic drugs.

NOTE Confidence: 0.8119258

00:52:11.140 --> 00:52:13.132 But these I think you're probably

NOTE Confidence: 0.8119258

00:52:13.132 --> 00:52:14.801 more familiar with because they've

NOTE Confidence: 0.8119258

00:52:14.801 --> 00:52:16.505 been around for a long time,

NOTE Confidence: 0.8119258

00:52:16.510 --> 00:52:17.142 but definitely,

NOTE Confidence: 0.8119258

00:52:17.142 --> 00:52:18.722 alopecia mucositis are kind of

NOTE Confidence: 0.8119258

00:52:18.722 --> 00:52:19.670 your hallmark toxicities.

NOTE Confidence: 0.8119258

00:52:19.670 --> 00:52:21.310 Nail changes are really important

NOTE Confidence: 0.8119258

00:52:21.310 --> 00:52:24.089 and he's come up a lot to my clinic,

NOTE Confidence: 0.8119258

00:52:24.090 --> 00:52:25.580 specially young women with breast

NOTE Confidence: 0.8119258

00:52:25.580 --> 00:52:26.772 and gynecological cancers on

NOTE Confidence: 0.8119258

00:52:26.772 --> 00:52:27.879 taxanes or anthracyclines.

NOTE Confidence: 0.8119258

00:52:27.880 --> 00:52:29.148 They get very painful

NOTE Confidence: 0.8119258

00:52:29.148 --> 00:52:30.099 paronychia subungual hemorrhage.

NOTE Confidence: 0.8119258

00:52:30.100 --> 00:52:33.052 They can lose the nail plate they can become.

NOTE Confidence: 0.8119258

00:52:33.060 --> 00:52:33.678 Co infected,

NOTE Confidence: 0.8119258

00:52:33.678 --> 00:52:35.841 and so I think these toxicities are

NOTE Confidence: 0.8119258

00:52:35.841 --> 00:52:37.631 really important and then there's

NOTE Confidence: 0.8119258

00:52:37.631 --> 00:52:39.401 the toxic rash of chemotherapy

NOTE Confidence: 0.8119258

00:52:39.401 --> 00:52:41.510 which can be hand foot syndrome

NOTE Confidence: 0.8119258

00:52:41.510 --> 00:52:43.200 or malignant intertrigo flow under

NOTE Confidence: 0.8119258

00:52:43.200 --> 00:52:45.624 the umbrella of toxic erythema of

NOTE Confidence: 0.8119258

00:52:45.624 --> 00:52:47.702 chemo and these reactions occur

NOTE Confidence: 0.8119258

00:52:47.702 --> 00:52:49.652 through the ecrivain excretion of

NOTE Confidence: 0.8119258

00:52:49.652 --> 00:52:52.519 chemo in the skin of echoing glands.

NOTE Confidence: 0.8119258

00:52:52.520 --> 00:52:54.696 And we just wanted to do a brief

NOTE Confidence: 0.8119258

00:52:54.696 --> 00:52:56.947 shout out to my awesome research

NOTE Confidence: 0.8119258

00:52:56.947 --> 00:52:58.992 fellow who just matched into

NOTE Confidence: 0.8119258

00:52:58.992 --> 00:53:00.180 dermatology at Cornell.

NOTE Confidence: 0.8119258

00:53:00.180 --> 00:53:02.118 Rihanna and she was very interested

NOTE Confidence: 0.8119258

00:53:02.118 --> 00:53:04.233 in looking at the cutaneous toxicities

NOTE Confidence: 0.8119258

00:53:04.233 --> 00:53:06.501 in patients we've seen with skin

NOTE Confidence: 0.8119258

00:53:06.501 --> 00:53:08.968 of color which really make up a

NOTE Confidence: 0.8119258

00:53:08.968 --> 00:53:10.613 large proportion of our clinic.

NOTE Confidence: 0.8119258

00:53:10.620 --> 00:53:13.049 And while the diagnosis in general or

NOTE Confidence: 0.8119258

00:53:13.049 --> 00:53:15.487 similar to patients without skin of color,

NOTE Confidence: 0.8119258

00:53:15.490 --> 00:53:17.225 there's clearly a very prominent

NOTE Confidence: 0.8119258

00:53:17.225 --> 00:53:18.266 finding of hyperpigmentation,

NOTE Confidence: 0.8119258

00:53:18.270 --> 00:53:20.358 which is very bothersome and very,

NOTE Confidence: 0.8119258

00:53:20.360 --> 00:53:22.195 very prevalent after a rash

NOTE Confidence: 0.8119258

00:53:22.195 --> 00:53:23.663 are examples of that.

NOTE Confidence: 0.8119258

00:53:23.670 --> 00:53:24.890 Patients who get fatal,

NOTE Confidence: 0.8119258

00:53:24.890 --> 00:53:26.415 I go with darker skin.

NOTE Confidence: 0.8119258

00:53:26.420 --> 00:53:28.256 It's obviously a lot more noticeable,

NOTE Confidence: 0.8119258

00:53:28.260 --> 00:53:30.096 and then there's definitely a propensity

NOTE Confidence: 0.8119258

00:53:30.096 --> 00:53:31.320 for starring starring alopecia,

NOTE Confidence: 0.8119258

00:53:31.320 --> 00:53:32.850 but also just keloid scarring.

NOTE Confidence: 0.8119258

00:53:32.850 --> 00:53:34.970 Here's an example of a patient with a

NOTE Confidence: 0.8119258

00:53:34.970 --> 00:53:36.605 keloid overport site which responded

NOTE Confidence: 0.8119258

00:53:36.605 --> 00:53:38.355 well to injection of triamcinolone,

NOTE Confidence: 0.8119258

00:53:38.360 --> 00:53:40.656 so I think it's important to look

NOTE Confidence: 0.8119258

00:53:40.656 --> 00:53:42.786 at how these toxicities differ

NOTE Confidence: 0.8119258

00:53:42.786 --> 00:53:44.926 and in various populations.

NOTE Confidence: 0.8119258

00:53:44.930 --> 00:53:46.700 And in closing went to refer

NOTE Confidence: 0.8119258

00:53:46.700 --> 00:53:47.880 patients to our clinic.

NOTE Confidence: 0.8119258

00:53:47.880 --> 00:53:49.889 I think the short answer is anytime

NOTE Confidence: 0.8119258

00:53:49.889 --> 00:53:51.720 you need a hand, we're really,

NOTE Confidence: 0.8119258

00:53:51.720 --> 00:53:53.490 really happy to see these patients.

NOTE Confidence: 0.828433199999999

00:53:53.490 --> 00:53:55.366 It is a privilege definitely for rashes

NOTE Confidence: 0.828433199999999

00:53:55.366 --> 00:53:57.242 that are higher grade that are impacting

NOTE Confidence: 0.828433199999999

00:53:57.242 --> 00:53:59.205 quality of life or that are recalcitrant

NOTE Confidence: 0.828433199999999

00:53:59.205 --> 00:54:01.155 to kind of conservative management.

NOTE Confidence: 0.828433199999999

00:54:01.160 --> 00:54:02.960 And definitely anytime there's a red

NOTE Confidence: 0.828433199999999

00:54:02.960 --> 00:54:04.988 flag that I mentioned like skin pain,

NOTE Confidence: 0.828433199999999

00:54:04.990 --> 00:54:06.800 duskiness, blisters or plus definitely

NOTE Confidence: 0.828433199999999

00:54:06.800 --> 00:54:08.610 send those patients our way.

NOTE Confidence: 0.828433199999999

00:54:08.610 --> 00:54:10.766 So in conclusion, I hope you'll you'll

NOTE Confidence: 0.828433199999999

00:54:10.766 --> 00:54:12.880 see from this talk that cutaneous

NOTE Confidence: 0.828433199999999

00:54:12.880 --> 00:54:14.765 toxicities are not just common,

NOTE Confidence: 0.828433199999999

00:54:14.770 --> 00:54:17.017 but they're also really important in the

NOTE Confidence: 0.828433199999999

00:54:17.017 --> 00:54:18.870 overall management of cancer patients.

NOTE Confidence: 0.828433199999999

00:54:18.870 --> 00:54:19.556 Ann Ann.

NOTE Confidence: 0.828433199999999

00:54:19.556 --> 00:54:21.614 I hope that Dermot Earley dermatologic

NOTE Confidence: 0.828433199999999

00:54:21.614 --> 00:54:23.318 intervention can make a difference.

NOTE Confidence: 0.828433199999999

00:54:23.320 --> 00:54:25.025 Remember that the EGFR acne

NOTE Confidence: 0.828433199999999

00:54:25.025 --> 00:54:26.389 reform rash often starts.

NOTE Confidence: 0.828433199999999

00:54:26.390 --> 00:54:28.100 It is a sterile rash,

NOTE Confidence: 0.828433199999999

00:54:28.100 --> 00:54:29.966 but it can often be secondarily

NOTE Confidence: 0.828433199999999

00:54:29.966 --> 00:54:32.389 infected and you can get these unusual

NOTE Confidence: 0.828433199999999

00:54:32.389 --> 00:54:34.254 late perperek eruptions as well.

NOTE Confidence: 0.828433199999999

00:54:34.260 --> 00:54:36.633 Hand foot skin from the anti angiogenesis

NOTE Confidence: 0.828433199999999

00:54:36.633 --> 00:54:38.859 drugs and definitely have associated pain.

NOTE Confidence: 0.828433199999999

00:54:38.860 --> 00:54:40.696 We don't have great treatments yet,

NOTE Confidence: 0.828433199999999

00:54:40.700 --> 00:54:42.115 so please consider referring patients

NOTE Confidence: 0.828433199999999

00:54:42.115 --> 00:54:44.173 to the study using a novel nitroglycerin

NOTE Confidence: 0.828433199999999

00:54:44.173 --> 00:54:46.224 ointment to treat it and then turning

NOTE Confidence: 0.828433199999999

00:54:46.224 --> 00:54:48.040 to the checkpoint inhibitor rash.

NOTE Confidence: 0.828433199999999

00:54:48.040 --> 00:54:49.804 I think the lichenoid one is

NOTE Confidence: 0.828433199999999

00:54:49.804 --> 00:54:51.710 the important one to know about.

NOTE Confidence: 0.828433199999999

00:54:51.710 --> 00:54:53.588 It's common it can have associated

NOTE Confidence: 0.828433199999999

00:54:53.588 --> 00:54:54.840 parictis and mucosal involvement

NOTE Confidence: 0.828433199999999

00:54:54.895 --> 00:54:56.300 as well as bullous pemphigoid,

NOTE Confidence: 0.828433199999999

00:54:56.300 --> 00:54:57.830 which frequently requires systemic therapy.

NOTE Confidence: 0.828433199999999

00:54:57.830 --> 00:54:59.666 And if there's any red flag,

NOTE Confidence: 0.828433199999999

00:54:59.670 --> 00:55:00.585 signs or symptoms,

NOTE Confidence: 0.828433199999999

00:55:00.585 --> 00:55:02.415 obviously you know you have to

NOTE Confidence: 0.828433199999999

00:55:02.415 --> 00:55:04.328 treat these patients aggressively.

NOTE Confidence: 0.828433199999999

00:55:04.330 --> 00:55:06.458 So I just wanted to thank really all

NOTE Confidence: 0.828433199999999

00:55:06.458 --> 00:55:08.708 of my colleagues Ann and Metang.

NOTE Confidence: 0.828433199999999

00:55:08.710 --> 00:55:09.679 Sir John Cradoc,

NOTE Confidence: 0.828433199999999

00:55:09.679 --> 00:55:11.294 everyone at Smilow who's supported

NOTE Confidence: 0.828433199999999

00:55:11.294 --> 00:55:12.780 our clinic over the years.

NOTE Confidence: 0.828433199999999

00:55:12.780 --> 00:55:15.060 I have a really great team from the

NOTE Confidence: 0.828433199999999

00:55:15.060 --> 00:55:17.785 admins to the nurses to my chief residents,

NOTE Confidence: 0.828433199999999

00:55:17.790 --> 00:55:19.974 many of which have chosen Uncle Dharmas.

NOTE Confidence: 0.828433199999999

00:55:19.980 --> 00:55:21.877 Akarere Anatomy very proud and as well

NOTE Confidence: 0.828433199999999

00:55:21.877 --> 00:55:24.679 as my my research fellows, an NYCC I.

NOTE Confidence: 0.828433199999999

00:55:24.679 --> 00:55:26.870 So if you ever have any patients,

NOTE Confidence: 0.828433199999999

00:55:26.870 --> 00:55:28.430 I'm very I'm always available.

NOTE Confidence: 0.828433199999999

00:55:28.430 --> 00:55:30.308 You can text me call me.

NOTE Confidence: 0.828433199999999

00:55:30.310 --> 00:55:32.494 Contact us and we'll gladly see them.

NOTE Confidence: 0.828433199999999

00:55:32.500 --> 00:55:34.996 So thank you and I'll take any questions.

NOTE Confidence: 0.8417028

00:55:39.340 --> 00:55:40.960 It's terrific, thank you, Jonathan.

NOTE Confidence: 0.8417028

00:55:40.960 --> 00:55:43.228 Do you have questions from the audience?

NOTE Confidence: 0.76453024

00:55:54.260 --> 00:55:56.745 My recollection is that with the the

NOTE Confidence: 0.76453024

00:55:56.745 --> 00:55:59.521 B RAF inhibitors there was a serious

NOTE Confidence: 0.76453024

00:55:59.521 --> 00:56:01.975 problem with squamous cell carcinoma's is

NOTE Confidence: 0.76453024

00:56:01.980 --> 00:56:03.138 that yeah so

NOTE Confidence: 0.791491097

00:56:03.140 --> 00:56:04.340 actually had a.

NOTE Confidence: 0.791491097

00:56:04.340 --> 00:56:07.140 I had a picture of that slide.

NOTE Confidence: 0.791491097

00:56:07.140 --> 00:56:10.550 I didn't go into it too much but but we had.

NOTE Confidence: 0.791491097

00:56:10.550 --> 00:56:12.830 We saw a lot of toxicities over the

NOTE Confidence: 0.791491097

00:56:12.830 --> 00:56:14.888 years with the beer at inhibitors,

NOTE Confidence: 0.791491097

00:56:14.890 --> 00:56:16.720 but with the concomitant administration

NOTE Confidence: 0.791491097

00:56:16.720 --> 00:56:18.891 of the American hitters we've actually

NOTE Confidence: 0.791491097

00:56:18.891 --> 00:56:20.577 seen that basically drop down to

NOTE Confidence: 0.791491097

00:56:20.577 --> 00:56:23.106 near near 0 and so you can still get

NOTE Confidence: 0.791491097

00:56:23.106 --> 00:56:24.810 phototoxic rash is another odd things,

NOTE Confidence: 0.791491097

00:56:24.810 --> 00:56:26.050 like everything and awesome,

NOTE Confidence: 0.791491097

00:56:26.050 --> 00:56:27.440 we've not seen squamous cells

NOTE Confidence: 0.791491097

00:56:27.440 --> 00:56:29.238 develop in patients on be right

NOTE Confidence: 0.791491097

00:56:29.238 --> 00:56:31.008 contributors to the American hitter.

NOTE Confidence: 0.791491097

00:56:31.010 --> 00:56:31.320 Coadministration

NOTE Confidence: 0.80304575

00:56:31.320 --> 00:56:32.250 perfect thank you.

NOTE Confidence: 0.86902666

00:56:40.430 --> 00:56:41.429 Any other questions?

NOTE Confidence: 0.8423256

00:56:48.780 --> 00:56:50.200 If not, thank you Jonathan.

NOTE Confidence: 0.8423256

00:56:50.200 --> 00:56:51.276 Very interesting. Looks like

NOTE Confidence: 0.8423256

00:56:51.276 --> 00:56:53.240 you're making a lot of progress in

NOTE Confidence: 0.8423256

00:56:53.240 --> 00:56:54.460 managing these these disorders.

NOTE Confidence: 0.8908938

00:56:55.650 --> 00:56:56.538 Thanks for having me.