WEBVTT

00:00:00.000 --> 00:00:01.960 Funding for Yale Cancer Answers

NOTE Confidence: 0.9586961

00:00:01.960 --> 00:00:03.920 is provided by Smilow Cancer

NOTE Confidence: 0.9586961

00:00:03.990 --> 00:00:05.690 Hospital and AstraZeneca.

NOTE Confidence: 0.96957475

00:00:07.730 --> 00:00:09.902 Welcome to Yale Cancer Answers with

NOTE Confidence: 0.96957475

00:00:09.902 --> 00:00:12.408 your host doctor Anees Chagpar.

NOTE Confidence: 0.96957475

00:00:12.410 --> 00:00:14.330 Yale Cancer Answers features the

NOTE Confidence: 0.96957475

00:00:14.330 --> 00:00:16.692 latest information on cancer care by

NOTE Confidence: 0.96957475

00:00:16.692 --> 00:00:18.204 welcoming oncologists and specialists

NOTE Confidence: 0.96957475

00:00:18.204 --> 00:00:20.741 who are on the forefront of the

NOTE Confidence: 0.96957475

00:00:20.741 --> 00:00:22.487 battle to fight cancer. This week,

NOTE Confidence: 0.96957475

00:00:22.490 --> 00:00:24.145 it's a conversation about sickle

NOTE Confidence: 0.96957475

00:00:24.145 --> 00:00:26.236 cell disease and cancer in pediatric

NOTE Confidence: 0.96957475

00:00:26.236 --> 00:00:28.091 patients with doctor Farzana Pashankar.

NOTE Confidence: 0.96957475

00:00:28.091 --> 00:00:30.729 Dr Pashankar is an associate

NOTE Confidence: 0.96957475

00:00:30.729 --> 00:00:32.554 professor of Pediatrics in hematology

NOTE Confidence: 0.96957475

00:00:32.554 --> 00:00:35.090 oncology at the Yale School of Medicine,

NOTE Confidence: 0.96957475

00:00:35.090 --> 00:00:38.210 where Doctor Chagpar is a

NOTE Confidence: 0.96957475

00:00:38.210 --> 00:00:40.290 professor of surgical oncology.

00:00:40.630 --> 00:00:43.006 Maybe we can start off by you telling

NOTE Confidence: 0.9838451

00:00:43.006 --> 00:00:45.548 us a little bit about yourself and

NOTE Confidence: 0.9838451

00:00:45.548 --> 00:00:48.131 how you got involved in doing what

NOTE Confidence: 0.9838451

00:00:48.131 --> 00:00:50.675 you do and what exactly do you do?

NOTE Confidence: 0.8281876

00:00:53.180 --> 00:00:57.797 Essentially I had a really long,

NOTE Confidence: 0.8281876

00:00:57.800 --> 00:00:59.261 circuitous career journey,

NOTE Confidence: 0.8281876

00:00:59.261 --> 00:01:03.291 but I got involved in doing pediatric

NOTE Confidence: 0.8281876

00:01:03.291 --> 00:01:07.029 oncology when I was training in England,

NOTE Confidence: 0.8281876

00:01:07.030 --> 00:01:10.622 after which I did a pediatric hematology

NOTE Confidence: 0.8281876

00:01:10.622 --> 00:01:12.666 oncology fellowship in Canada.

NOTE Confidence: 0.8281876

00:01:12.670 --> 00:01:14.290 And after fellowship,

NOTE Confidence: 0.8281876

00:01:14.290 --> 00:01:18.070 the two areas that I really loved

NOTE Confidence: 0.8281876

00:01:18.172 --> 00:01:21.058 and wanted to focus my career

NOTE Confidence: 0.8281876

00:01:21.058 --> 00:01:23.870 on were sickle cell disease

NOTE Confidence: 0.8281876

00:01:23.870 --> 00:01:25.208 and solid tumors

NOTE Confidence: 0.8281876

00:01:25.210 --> 00:01:27.904 and development of clinical

NOTE Confidence: 0.8281876

00:01:27.904 --> 00:01:30.655 trials and improving care for children

NOTE Confidence: 0.8281876

00:01:30.655 --> 00:01:33.277 with sickle cell disease and cancer,

NOTE Confidence: 0.8281876

00:01:33.280 --> 00:01:34.765 particularly solid tumors.

NOTE Confidence: 0.8281876

00:01:34.765 --> 00:01:38.230 So those are the two areas that

NOTE Confidence: 0.8281876

00:01:38.316 --> 00:01:40.446 I have focused on in

NOTE Confidence: 0.8281876

00:01:40.450 --> 00:01:44.473 my career for the last

NOTE Confidence: 0.8281876

00:01:44.480 --> 00:01:47.792 about 17 to 20 years and my

NOTE Confidence: 0.8281876

00:01:47.792 --> 00:01:51.380 passion primarily has been to focus on

NOTE Confidence: 0.8281876

00:01:51.380 --> 00:01:54.669 development of clinical trials for children for

NOTE Confidence: 0.8281876

00:01:54.670 --> 00:01:57.118 certain rare types of solid tumors,

NOTE Confidence: 0.8281876

00:01:57.120 --> 00:01:59.466 and also in bringing new and

NOTE Confidence: 0.8281876

00:01:59.466 --> 00:02:01.527 innovative therapies for sickle cell

NOTE Confidence: 0.8281876

00:02:01.527 --> 00:02:03.647 disease to our patient population.

NOTE Confidence: 0.8281876

00:02:03.650 --> 00:02:04.868 So maybe we

NOTE Confidence: 0.97506434

00:02:04.870 --> 00:02:06.370 can start with that.

NOTE Confidence: 0.97506434

00:02:06.370 --> 00:02:08.620 Is there much overlap between sickle

NOTE Confidence: 0.97506434

00:02:08.687 --> 00:02:10.987 cell disease and pediatric cancers?

NOTE Confidence: 0.97506434

00:02:10.990 --> 00:02:14.246 I mean, do children get sickle cell disease?

NOTE Confidence: 0.97506434

00:02:14.250 --> 00:02:16.665 Does sickle cell kind of lead to

NOTE Confidence: 0.97506434

00:02:16.665 --> 00:02:19.455 cancer or are these just two separate

NOTE Confidence: 0.97506434

00:02:19.455 --> 00:02:21.975 passions of yours that happen to

NOTE Confidence: 0.97506434

00:02:22.050 --> 00:02:24.450 coincide in the same individual?

NOTE Confidence: 0.9367568

00:02:25.740 --> 00:02:28.860 These are two separate passions,

NOTE Confidence: 0.9367568

00:02:28.860 --> 00:02:31.524 and because in Pediatrics we

NOTE Confidence: 0.9367568

00:02:31.524 --> 00:02:34.320 train in both hematology and oncology,

NOTE Confidence: 0.9367568

00:02:34.320 --> 00:02:36.264 these are two passions which

00:02:38.581 --> 00:02:40.946 developed during my training,

NOTE Confidence: 0.9367568

00:02:40.950 --> 00:02:44.260 but it is not connected in any way in terms

NOTE Confidence: 0.9367568

00:02:44.340 --> 00:02:47.190 of children with sickle cell disease being

NOTE Confidence: 0.9367568

00:02:47.190 --> 00:02:49.566 more prone to getting cancer or

NOTE Confidence: 0.9367568

00:02:49.566 --> 00:02:51.967 children with cancer more prone to

NOTE Confidence: 0.9367568

00:02:51.967 --> 00:02:54.205 having any issues with sickle cell.

00:02:56.490 --> 00:02:59.496 Let's talk about each of the two in turn

NOTE Confidence: 0.970355798

00:02:59.496 --> 00:03:02.222 and let's start maybe with

NOTE Confidence: 0.970355798

00:03:02.222 --> 00:03:04.390 talking about pediatric cancers.

00:03:06.982 --> 00:03:09.440 Any time we hear about children getting cancer,

NOTE Confidence: 0.970355798

00:03:09.440 --> 00:03:10.988 the uniform emotion that

NOTE Confidence: 0.970355798

00:03:10.988 --> 00:03:12.893 people feel is heartbreak.

NOTE Confidence: 0.970355798

00:03:12.893 --> 00:03:15.364 So tell us a little bit more

NOTE Confidence: 0.970355798

00:03:15.364 --> 00:03:17.590 about how you get involved.

NOTE Confidence: 0.970355798

00:03:17.590 --> 00:03:20.894 I know so many medical

NOTE Confidence: 0.970355798

00:03:20.894 --> 00:03:23.787 students come up to me and they say,

NOTE Confidence: 0.970355798

00:03:23.790 --> 00:03:26.604 how can you possibly dedicate your career

NOTE Confidence: 0.970355798

00:03:26.610 --> 00:03:29.277 to doing something that is so heartbreaking,

00:03:31.518 --> 00:03:34.226 but honestly after doing this for over 20 years

NOTE Confidence: 0.978117600000001

00:03:34.226 --> 00:03:36.512 this is such a rewarding journey.

NOTE Confidence: 0.978117600000001

00:03:36.520 --> 00:03:39.192 It is the time that a lot of

NOTE Confidence: 0.978117600000001

00:03:39.192 --> 00:03:41.089 families are going through

NOTE Confidence: 0.978117600000001

00:03:41.090 --> 00:03:43.772 probably the most intense and difficult

NOTE Confidence: 0.978117600000001

00:03:43.772 --> 00:03:46.663 time of their life and to be able

NOTE Confidence: 0.978117600000001

00:03:46.663 --> 00:03:49.968 to be a part of it and to help them

NOTE Confidence: 0.978117600000001

00:03:49.968 --> 00:03:52.512 navigate and think about the treatment

NOTE Confidence: 0.978117600000001

00:03:52.520 --> 00:03:54.837 decisions for their child and to be

NOTE Confidence: 0.978117600000001

00:03:54.837 --> 00:03:57.528 able to treat their child effectively,

NOTE Confidence: 0.978117600000001

00:03:57.530 --> 00:03:59.130 honestly, I don't think

NOTE Confidence: 0.978117600000001

00:03:59.130 --> 00:04:01.130 there's a substitute for that.

NOTE Confidence: 0.978117600000001

00:04:01.130 --> 00:04:03.530 I think it's so emotionally rewarding.

NOTE Confidence: 0.978117600000001

00:04:03.530 --> 00:04:06.330 It is also heartbreaking at times.

NOTE Confidence: 0.978117600000001

00:04:06.330 --> 00:04:09.050 I mean, we do have children who could

NOTE Confidence: 0.978117600000001

00:04:09.050 --> 00:04:11.950 have a recurrence and it is

NOTE Confidence: 0.978117600000001

00:04:11.950 --> 00:04:14.914 a lot of intense time thinking about

NOTE Confidence: 0.978117600000001

00:04:14.914 --> 00:04:17.836 not only the management but also

NOTE Confidence: 0.978117600000001

00:04:17.836 --> 00:04:20.190 supporting these families through that.

NOTE Confidence: 0.978117600000001

00:04:20.190 --> 00:04:22.980 But the relationships I've built with

NOTE Confidence: 0.978117600000001

00:04:23.060 --> 00:04:25.460 even the children that we've lost,

NOTE Confidence: 0.978117600000001

00:04:25.460 --> 00:04:26.270 the relationships

NOTE Confidence: 0.978117600000001

00:04:26.270 --> 00:04:28.295 built with those parents

NOTE Confidence: 0.978117600000001

00:04:28.295 --> 00:04:29.510 is just unbelievable.

NOTE Confidence: 0.978117600000001

00:04:29.510 --> 00:04:31.540 And after losing the child,

NOTE Confidence: 0.978117600000001

00:04:31.540 --> 00:04:33.076 they still think of

NOTE Confidence: 0.978117600000001

00:04:33.076 --> 00:04:36.799 us as being part of their family.

NOTE Confidence: 0.978117600000001

00:04:36.800 --> 00:04:39.327 And I think that bond is

NOTE Confidence: 0.978117600000001

00:04:39.327 --> 00:04:41.260 so valuable and precious.

NOTE Confidence: 0.978117600000001

00:04:41.260 --> 00:04:44.500 So yes, it can be heartbreaking at times,

NOTE Confidence: 0.978117600000001

00:04:44.500 --> 00:04:46.520 but it's also extremely rewarding.

NOTE Confidence: 0.978117600000001

00:04:46.520 --> 00:04:48.998 And today I would say that we cure

NOTE Confidence: 0.978117600000001

00:04:48.998 --> 00:04:50.650 about 85%

NOTE Confidence: 0.978117600000001

00:04:50.650 --> 00:04:52.530 of children with cancer very successfully.

NOTE Confidence: 0.978117600000001

00:04:52.530 --> 00:04:54.665 So clearly we have done a really

NOTE Confidence: 0.978117600000001

00:04:54.665 --> 00:04:57.120 good job at trying to make advances

NOTE Confidence: 0.978117600000001

00:04:57.120 --> 00:04:59.322 and improve the life of these

NOTE Confidence: 0.978117600000001

00:04:59.399 --> 00:05:01.547 children diagnosed with cancer.

00:05:03.430 --> 00:05:06.438 And I think that's such a key point is that

NOTE Confidence: 0.98242605

00:05:06.438 --> 00:05:08.574 whereas many people will

NOTE Confidence: 0.98242605

00:05:08.574 --> 00:05:11.330 think of cancer as a death sentence,

NOTE Confidence: 0.98242605

00:05:11.330 --> 00:05:13.244 now more and more what we're

NOTE Confidence: 0.98242605

00:05:13.244 --> 00:05:15.876 finding out in a variety of cancers

NOTE Confidence: 0.98242605

00:05:15.876 --> 00:05:18.432 is that really we're beginning to

NOTE Confidence: 0.98242605

00:05:18.432 --> 00:05:20.847 discover that many of these cancers

NOTE Confidence: 0.98242605

00:05:20.850 --> 00:05:23.280 are treatable and with good outcomes,

NOTE Confidence: 0.98242605

00:05:23.280 --> 00:05:25.710 but you're interested in solid tumors,

NOTE Confidence: 0.98242605

00:05:25.710 --> 00:05:28.782 so tell us more about the solid tumors

NOTE Confidence: 0.98242605

00:05:28.782 --> 00:05:32.119 that occur in Pediatrics and what kind

NOTE Confidence: 0.98242605

00:05:32.119 --> 00:05:35.430 of treatments we have to offer these kids.

NOTE Confidence: 0.98242605

00:05:35.430 --> 00:05:36.902 What the prognosis is,

NOTE Confidence: 0.98242605

00:05:36.902 --> 00:05:38.742 and the other thing that

NOTE Confidence: 0.98242605

00:05:38.742 --> 00:05:40.699 I'm always curious about

NOTE Confidence: 0.98242605

00:05:40.700 --> 00:05:43.340 on this show, we spend so much time

NOTE Confidence: 0.98242605

00:05:43.340 --> 00:05:45.559 talking about personalized medicine.

NOTE Confidence: 0.98242605

00:05:45.560 --> 00:05:47.990 The fact that now

NOTE Confidence: 0.98242605

00:05:47.990 --> 00:05:50.937 we've begun to really unlock the

NOTE Confidence: 0.98242605

00:05:50.940 --> 00:05:52.364 genomic abnormalities that

NOTE Confidence: 0.98242605

00:05:52.364 --> 00:05:54.500 occur in cancers we're able to

NOTE Confidence: 0.98242605

00:05:54.561 --> 00:05:56.577 better target these abnormalities.

NOTE Confidence: 0.98242605

00:05:56.580 --> 00:06:00.470 Can we do the same thing in kids and

NOTE Confidence: 0.98242605

00:06:00.567 --> 00:06:04.354 is that resulting in higher cure rates?

00:06:04.860 --> 00:06:08.820 Great question and a lot to unpack.

NOTE Confidence: 0.84232676

00:06:08.820 --> 00:06:12.131 In terms of solid tumors, they

00:06:15.970 --> 00:06:19.210 really change across the age spectrum,

NOTE Confidence: 0.84232676

00:06:19.210 --> 00:06:21.989 so the solid tumors that we see

NOTE Confidence: 0.84232676

00:06:21.989 --> 00:06:25.144 in the much younger child are

NOTE Confidence: 0.84232676

00:06:25.144 --> 00:06:27.628 tumors such as neuroblastoma,

NOTE Confidence: 0.84232676

00:06:27.630 --> 00:06:29.606 Wilms tumors, retinoblastoma so

NOTE Confidence: 0.84232676

00:06:29.606 --> 00:06:32.076 much more embryonal based tumors,

NOTE Confidence: 0.84232676

00:06:32.080 --> 00:06:34.640 and then as you gradually

NOTE Confidence: 0.84232676

00:06:34.640 --> 00:06:37.400 advance and you're coming to the

NOTE Confidence: 0.84232676

00:06:37.400 --> 00:06:38.780 prepubertal young adolescence,

NOTE Confidence: 0.84232676

00:06:38.780 --> 00:06:41.080 we start seeing more tumors

NOTE Confidence: 0.84232676

00:06:41.080 --> 00:06:44.097 such as the sarcomas, so the osteosarcoma

NOTE Confidence: 0.84232676

00:06:44.097 --> 00:06:47.060 the soft tissue sarcomas

NOTE Confidence: 0.84232676

00:06:47.060 --> 00:06:49.355 which have an overlap

NOTE Confidence: 0.84232676

00:06:49.355 --> 00:06:52.120 with the adult population as well,

NOTE Confidence: 0.84232676

00:06:52.120 --> 00:06:54.420 and in addition, we see,

NOTE Confidence: 0.84232676

00:06:54.420 --> 00:06:55.863 besides these sarcomas,

NOTE Confidence: 0.84232676

00:06:55.863 --> 00:06:58.268 of course we see Rhabdomyosarcoma

NOTE Confidence: 0.84232676

00:06:58.268 --> 00:07:00.644 which occurs across the age

NOTE Confidence: 0.84232676

00:07:00.644 --> 00:07:02.874 spectrum from childhood onto the

NOTE Confidence: 0.84232676

00:07:02.874 --> 00:07:05.029 adolescent young adult population.

NOTE Confidence: 0.84232676

00:07:05.030 --> 00:07:07.376 So in terms of solid tumors,

NOTE Confidence: 0.84232676

00:07:07.380 --> 00:07:09.564 really the main areas or the

NOTE Confidence: 0.84232676

00:07:09.564 --> 00:07:12.351 main types of solid tumors we see

NOTE Confidence: 0.84232676

00:07:12.351 --> 00:07:14.436 would be the embryonal tumors.

NOTE Confidence: 0.84232676

00:07:14.440 --> 00:07:16.400 As I already mentioned and

NOTE Confidence: 0.84232676

00:07:16.400 --> 00:07:18.360 then sort of the sarcomas

NOTE Confidence: 0.84232676

00:07:18.360 --> 00:07:21.097 and the bone sarcomas.

NOTE Confidence: 0.84232676

00:07:21.100 --> 00:07:23.518 Those are the two big groups

NOTE Confidence: 0.84232676

00:07:23.518 --> 00:07:25.809 of solid tumors that we see.

NOTE Confidence: 0.84232676

00:07:25.810 --> 00:07:28.882 We also see interestingly a lot of rare

NOTE Confidence: 0.84232676

00:07:28.882 --> 00:07:31.620 tumors and one of my particular area

NOTE Confidence: 0.84232676

00:07:31.620 --> 00:07:34.429 of interest has been in rare tumors,

NOTE Confidence: 0.84232676

00:07:34.430 --> 00:07:36.440 and I've been very involved

NOTE Confidence: 0.84232676

00:07:36.440 --> 00:07:38.048 in developing clinical trials

NOTE Confidence: 0.84232676

00:07:38.050 --> 00:07:40.534 for these children with rare tumors

NOTE Confidence: 0.84232676

00:07:40.534 --> 00:07:42.630 through the Children's oncology group,

NOTE Confidence: 0.84232676

00:07:42.630 --> 00:07:45.174 so the rare tumors that we see are

NOTE Confidence: 0.84232676

00:07:45.174 --> 00:07:47.619 things like nasopharyngeal carcinoma,

NOTE Confidence: 0.84232676

00:07:47.620 --> 00:07:49.432 adrenocortical carcinoma, thyroid cancer,

NOTE Confidence: 0.84232676

00:07:49.432 --> 00:07:52.584 which of course can occur in adults

NOTE Confidence: 0.84232676

00:07:52.584 --> 00:07:55.512 but also starts in young adolescence.

NOTE Confidence: 0.84232676

00:07:55.520 --> 00:07:58.425 So we see several of those patients,

NOTE Confidence: 0.84232676

00:07:58.430 --> 00:08:00.872 and now we've started seeing some

NOTE Confidence: 0.84232676

00:08:00.872 --> 00:08:03.840 of the tumors that are adult tumors

00:08:04.672 --> 00:08:06.336 earlier in Pediatrics,

NOTE Confidence: 0.84232676

00:08:06.340 --> 00:08:08.900 such as even colorectal carcinoma.

NOTE Confidence: 0.84232676

00:08:08.900 --> 00:08:11.497 So that's sort of the spectrum of

NOTE Confidence: 0.84232676

00:08:11.497 --> 00:08:14.747 tumors we see in pediatric solid tumors.

NOTE Confidence: 0.84232676

00:08:14.750 --> 00:08:17.198 I've not included brain tumors because

NOTE Confidence: 0.84232676

00:08:17.198 --> 00:08:19.350 we almost separate brain tumors,

NOTE Confidence: 0.84232676

00:08:19.350 --> 00:08:21.858 just like we do leukemia and lymphomas.

NOTE Confidence: 0.84232676

00:08:21.860 --> 00:08:25.196 And I don't treat brain tumors.

NOTE Confidence: 0.84232676

00:08:25.200 --> 00:08:28.126 I focus on the extracranial solid tumors,

NOTE Confidence: 0.84232676

00:08:28.130 --> 00:08:31.218 so those are the ones I've just mentioned

NOTE Confidence: 0.84232676

00:08:31.218 --> 00:08:33.702 with regards to the treatment and

NOTE Confidence: 0.84232676

00:08:33.702 --> 00:08:36.150 the role of personalized medicine or

NOTE Confidence: 0.84232676

00:08:36.225 --> 00:08:39.090 immunotherapy in treating these cancers.

00:08:41.650 --> 00:08:43.790 Again, the role of personalized medicine

00:08:44.570 --> 00:08:47.300 is very well known in the adult oncologic world.

00:08:48.910 --> 00:08:51.466 In Pediatrics we still do profile

NOTE Confidence: 0.84232676

00:08:51.470 --> 00:08:54.459 most of our patients with solid tumors,

NOTE Confidence: 0.84232676

00:08:54.460 --> 00:08:56.595 and there have been tumors

NOTE Confidence: 0.84232676

00:08:56.595 --> 00:08:58.303 which have happened recently and

NOTE Confidence: 0.84232676

00:08:58.310 --> 00:09:00.596 there's a lot of excitement on

NOTE Confidence: 0.84232676

00:09:00.596 --> 00:09:02.683 tumors where there's a specific

NOTE Confidence: 0.84232676

00:09:02.683 --> 00:09:05.138 targeted drug that is available,

NOTE Confidence: 0.84232676

00:09:05.140 --> 00:09:09.109 and one classic example of this is the

NOTE Confidence: 0.84232676

00:09:09.110 --> 00:09:09.996 TRK fusion cancers

NOTE Confidence: 0.84232676

00:09:09.996 --> 00:09:12.654 where there is a specific drug

00:09:14.995 --> 00:09:17.743 that has been developed with

NOTE Confidence: 0.84232676

00:09:17.743 --> 00:09:19.759 excellent outstanding results.

NOTE Confidence: 0.84232676

00:09:19.760 --> 00:09:23.148 So TRK fusion cancers can occur

NOTE Confidence: 0.84232676

00:09:23.150 --> 00:09:26.734 from infants where you

NOTE Confidence: 0.84232676

00:09:26.734 --> 00:09:29.439 have infantile fibrosarcoma's that occur in

NOTE Confidence: 0.84232676

00:09:29.440 --> 00:09:32.338 the first year of life,

NOTE Confidence: 0.84232676

00:09:32.340 --> 00:09:34.068 and then TRK Fusion

NOTE Confidence: 0.84232676

00:09:34.068 --> 00:09:36.660 sarcomas are also seen in older

NOTE Confidence: 0.84232676

00:09:36.751 --> 00:09:39.119 adolescents and young adults,

NOTE Confidence: 0.84232676

00:09:39.120 --> 00:09:40.832 so in specific situations

NOTE Confidence: 0.84232676

00:09:40.832 --> 00:09:44.044 we do also use what the adults

NOTE Confidence: 0.84232676

00:09:44.044 --> 00:09:46.240 use much more frequently,

NOTE Confidence: 0.9806486

00:09:46.240 --> 00:09:49.656 which is a very targeted therapy based on

NOTE Confidence: 0.9806486

00:09:49.660 --> 00:09:52.048 tumor profiling.

00:09:55.040 --> 00:09:57.150 How does prognosis vary

NOTE Confidence: 0.9806486

00:09:57.150 --> 00:09:58.838 amongst the pediatric cancers?

NOTE Confidence: 0.9806486

00:09:58.840 --> 00:10:00.950 Because you've kind of mentioned

NOTE Confidence: 0.9806486

00:10:00.950 --> 00:10:02.638 this whole spectrum,

NOTE Confidence: 0.9806486

00:10:02.640 --> 00:10:05.010 we have the leukemia lymphoma

NOTE Confidence: 0.9806486

00:10:05.010 --> 00:10:07.562 as one separate group and brain

NOTE Confidence: 0.9806486

00:10:07.562 --> 00:10:09.807 tumors as another separate group.

NOTE Confidence: 0.9806486

00:10:09.810 --> 00:10:12.799 But even within the non cranial solid

NOTE Confidence: 0.9806486

00:10:12.799 --> 00:10:16.049 tumors in pediatric populations

NOTE Confidence: 0.9806486

00:10:16.050 --> 00:10:19.326 we're looking at everything from eye tumors,

NOTE Confidence: 0.9806486

00:10:19.330 --> 00:10:20.755 retinoblastoma's to kidney

NOTE Confidence: 0.9806486

00:10:20.755 --> 00:10:23.605 tumors like Wilms tumor

NOTE Confidence: 0.9806486

00:10:23.605 --> 00:10:24.940 to sarcomas.

NOTE Confidence: 0.9806486

00:10:24.940 --> 00:10:29.143 So how do these vary in terms of prognosis,

NOTE Confidence: 0.9806486

00:10:29.150 --> 00:10:33.362 and have we seen a shift in terms of

00:10:34.268 --> 00:10:36.962 moving towards being able to treat

NOTE Confidence: 0.9806486

00:10:36.962 --> 00:10:39.920 these children better with new therapies?

NOTE Confidence: 0.92642444

00:10:41.100 --> 00:10:44.439 Yeah, so it is a whole spectrum.

NOTE Confidence: 0.92642444

00:10:44.440 --> 00:10:47.296 As you've already mentioned,

NOTE Confidence: 0.92642444

00:10:47.300 --> 00:10:50.639 I think we've done really well in

NOTE Confidence: 0.92642444

00:10:50.640 --> 00:10:53.496 some of these tumors.

NOTE Confidence: 0.92642444

00:10:53.500 --> 00:10:56.272 For example, in patients with retinoblastoma

NOTE Confidence: 0.92642444

00:10:56.272 --> 00:10:58.750 you have an excellent outcome,

NOTE Confidence: 0.92642444

00:10:58.750 --> 00:11:01.195 particularly now with intra arterial

NOTE Confidence: 0.92642444

00:11:01.195 --> 00:11:03.640 chemotherapy delivering very focused

NOTE Confidence: 0.92642444

00:11:03.705 --> 00:11:05.900 chemotherapy.

NOTE Confidence: 0.92642444

00:11:05.900 --> 00:11:08.938 We've also reduced the issue with long

NOTE Confidence: 0.92642444

00:11:08.938 --> 00:11:12.189 term side effects giving systemic therapy.

NOTE Confidence: 0.92642444

00:11:14.790 --> 00:11:17.744 Treatment has evolved

NOTE Confidence: 0.92642444

00:11:17.744 --> 00:11:20.266 significantly over the last maybe 10-15

NOTE Confidence: 0.92642444

00:11:20.266 --> 00:11:22.636 years with the development of

NOTE Confidence: 0.92642444

00:11:22.636 --> 00:11:25.207 an antibody called dinutuximab

NOTE Confidence: 0.92642444

00:11:25.210 --> 00:11:27.978 which focuses on the GD2

NOTE Confidence: 0.92642444

00:11:27.978 --> 00:11:31.290 which is expressed by neuroblastoma cells.

NOTE Confidence: 0.92642444

00:11:31.290 --> 00:11:34.466 So now we have this multi modality therapy

NOTE Confidence: 0.92642444

00:11:34.466 --> 00:11:37.799 that we do in addition to chemotherapy,

NOTE Confidence: 0.92642444

00:11:37.800 --> 00:11:38.720 surgery, and radiation.

NOTE Confidence: 0.92642444

00:11:38.720 --> 00:11:42.400 We also have this immunotherapy that is done

NOTE Confidence: 0.92642444

00:11:42.400 --> 00:11:43.546 in combination

NOTE Confidence: 0.92642444

00:11:43.546 --> 00:11:45.838 particularly for those who have high

NOTE Confidence: 0.92642444

00:11:45.838 --> 00:11:48.138 risk neuroblastoma in Wilms tumor,

NOTE Confidence: 0.92642444

00:11:48.140 --> 00:11:50.600 our outcomes have always been excellent,

NOTE Confidence: 0.92642444

00:11:50.600 --> 00:11:52.650 and we're continuing to improve

NOTE Confidence: 0.92642444

00:11:52.650 --> 00:11:53.470 those outcomes.

NOTE Confidence: 0.92642444

00:11:53.470 --> 00:11:55.520 And similarly I didn't

NOTE Confidence: 0.92642444

00:11:55.520 --> 00:11:57.160 mention germ cell tumors,

NOTE Confidence: 0.92642444

00:11:57.160 --> 00:12:00.030 which honestly, is

NOTE Confidence: 0.92642444

00:12:00.030 --> 00:12:02.490 a really strong interest of mine,

NOTE Confidence: 0.92642444

00:12:02.490 --> 00:12:06.180 so we do very well in germ cell tumors.

NOTE Confidence: 0.92642444

00:12:06.180 --> 00:12:08.640 And in all these four categories,

NOTE Confidence: 0.92642444

00:12:08.640 --> 00:12:11.510 I would say we have excellent outcomes.

NOTE Confidence: 0.92642444

00:12:11.510 --> 00:12:12.424 In sarcomas,

NOTE Confidence: 0.92642444

00:12:12.424 --> 00:12:15.166 I think we still have challenges.

NOTE Confidence: 0.92642444

00:12:15.170 --> 00:12:17.918 And the challenge really depends on

NOTE Confidence: 0.92642444

00:12:17.918 --> 00:12:21.280 the time of presentation,

NOTE Confidence: 0.92642444

00:12:21.280 --> 00:12:23.036 what the staging is, and

NOTE Confidence: 0.92642444

00:12:23.036 --> 00:12:25.231 for patients who present

NOTE Confidence: 0.92642444

00:12:25.231 --> 00:12:27.389 with metastatic sarcomas,

NOTE Confidence: 0.92642444

00:12:27.390 --> 00:12:29.930 be it Rhabdomyosarcoma or osteosarcoma,

NOTE Confidence: 0.92642444

00:12:29.930 --> 00:12:33.020 we still are challenged in terms

NOTE Confidence: 0.92642444

00:12:33.020 --> 00:12:36.039 of long term outcomes at times,

NOTE Confidence: 0.92642444

00:12:36.040 --> 00:12:39.940 and we have numerous clinical trials

NOTE Confidence: 0.92642444

00:12:39.940 --> 00:12:43.090 looking at different options which

00:12:46.240 --> 00:12:48.856 this is where we are

NOTE Confidence: 0.92642444

00:12:48.856 --> 00:12:50.721 looking to improve our outcomes

NOTE Confidence: 0.92642444

00:12:50.721 --> 00:12:51.840 by newer therapies.

NOTE Confidence: 0.92642444

00:12:51.840 --> 00:12:54.690 And as you mentioned, personalized therapies are

00:12:55.090 --> 00:12:57.575 so important to really try to get

NOTE Confidence: 0.98094404

00:12:57.575 --> 00:13:00.029 people involved in clinical trials

NOTE Confidence: 0.98094404

00:13:00.029 --> 00:13:02.669 to really move those therapies forward,

NOTE Confidence: 0.98094404

00:13:02.670 --> 00:13:05.726 but it's really great to hear that

NOTE Confidence: 0.98094404

00:13:05.726 --> 00:13:08.260 we're moving in the right direction,

NOTE Confidence: 0.98094404

00:13:08.260 --> 00:13:11.444 at least for the majority of solid tumors in kids.

NOTE Confidence: 0.98094404

00:13:11.450 --> 00:13:14.154 We're going to take a short

NOTE Confidence: 0.98094404

00:13:14.154 --> 00:13:17.070 break for medical minute and then learn

NOTE Confidence: 0.98094404

00:13:17.070 --> 00:13:19.830 more not only about pediatric cancer,

NOTE Confidence: 0.98094404

00:13:19.830 --> 00:13:22.637 but also delve into your interest in

NOTE Confidence: 0.98094404

00:13:22.637 --> 00:13:25.130 sickle cell disease right after this break.

NOTE Confidence: 0.98094404

00:13:25.130 --> 00:13:27.674 Please stay tuned for more

NOTE Confidence: 0.98094404

00:13:27.674 --> 00:13:29.370 with my guest Doctor Farzana Pashankar.

NOTE Confidence: 0.90915823

00:13:29.370 --> 00:13:32.338 Funding for Yale Cancer

NOTE Confidence: 0.90915823

00:13:32.338 --> 00:13:34.883 Answers comes from AstraZeneca, working

NOTE Confidence: 0.90915823

00:13:34.883 --> 00:13:38.267 to eliminate cancer as a cause of death.

NOTE Confidence: 0.90915823

00:13:38.270 --> 00:13:41.770 Learn more at astrazeneca-us.com.

NOTE Confidence: 0.90915823

00:13:41.770 --> 00:13:44.194 Genetic testing can be useful for

NOTE Confidence: 0.90915823

00:13:44.194 --> 00:13:46.568 people with certain types of cancer

NOTE Confidence: 0.90915823

00:13:46.568 --> 00:13:48.962 that seem to run in their families.

NOTE Confidence: 0.90915823

00:13:48.970 --> 00:13:51.268 Genetic counseling is a process that

NOTE Confidence: 0.90915823

00:13:51.268 --> 00:13:53.222 includes collecting a detailed personal

NOTE Confidence: 0.90915823

00:13:53.222 --> 00:13:55.742 and family history or risk assessment and

NOTE Confidence: 0.90915823

00:13:55.742 --> 00:13:58.069 a discussion of genetic testing options.

NOTE Confidence: 0.90915823

00:13:58.070 --> 00:14:01.100 Only about 5 to 10% of all cancers

NOTE Confidence: 0.90915823

00:14:01.100 --> 00:14:02.994 are inherited, and genetic testing

NOTE Confidence: 0.90915823

00:14:02.994 --> 00:14:04.884 is not recommended for everyone.

NOTE Confidence: 0.90915823

00:14:04.890 --> 00:14:07.020 Individuals who have a personal and

NOTE Confidence: 0.90915823

00:14:07.020 --> 00:14:08.910 or family history that includes

NOTE Confidence: 0.90915823

00:14:08.910 --> 00:14:10.950 cancer at unusually early ages,

NOTE Confidence: 0.90915823

00:14:10.950 --> 00:14:11.778 multiple relatives

NOTE Confidence: 0.90915823

00:14:11.778 --> 00:14:14.262 on the same side of the

NOTE Confidence: 0.90915823

00:14:14.262 --> 00:14:16.379 family with the same cancer,

NOTE Confidence: 0.90915823

00:14:16.380 --> 00:14:18.450 more than one diagnosis of

NOTE Confidence: 0.90915823

00:14:18.450 --> 00:14:20.520 cancer in the same individual,

NOTE Confidence: 0.90915823

00:14:20.520 --> 00:14:23.061 rare cancers or family history of a

NOTE Confidence: 0.90915823

00:14:23.061 --> 00:14:25.158 known altered cancer predisposing gene

NOTE Confidence: 0.90915823

00:14:25.158 --> 00:14:27.978 could be candidates for genetic testing.

NOTE Confidence: 0.90915823

00:14:27.980 --> 00:14:30.075 Resources for genetic counseling and

NOTE Confidence: 0.90915823

00:14:30.075 --> 00:14:32.170 testing are available at federally

NOTE Confidence: 0.90915823

00:14:32.236 --> 00:14:33.475 designated comprehensive cancer

NOTE Confidence: 0.90915823

00:14:33.475 --> 00:14:35.953 centers such as Yale Cancer Center

NOTE Confidence: 0.90915823

00:14:35.953 --> 00:14:37.908 and at Smilow Cancer Hospital.

NOTE Confidence: 0.90915823

00:14:37.910 --> 00:14:40.265 More information is available at

NOTE Confidence: 0.90915823

00:14:40.265 --> 00:14:41.678 yalecancercenter.org. You're listening

NOTE Confidence: 0.90915823

00:14:41.678 --> 00:14:43.399 to Connecticut Public Radio.

NOTE Confidence: 0.90915823

00:14:43.400 --> 00:14:43.760 Welcome

NOTE Confidence: 0.9770544

00:14:43.760 --> 00:14:45.560 back to Yale Cancer Answers.

NOTE Confidence: 0.9770544

00:14:45.560 --> 00:14:47.648 This is doctor Anees Chagpar

NOTE Confidence: 0.9770544

00:14:47.648 --> 00:14:49.846 and I'm joined tonight by my

NOTE Confidence: 0.9770544

00:14:49.846 --> 00:14:51.676 guest Doctor Farzana Pashankar.

NOTE Confidence: 0.9770544

00:14:51.680 --> 00:14:53.705 We're talking about sickle cell

NOTE Confidence: 0.9770544

00:14:53.705 --> 00:14:55.730 disease and cancer in pediatric

NOTE Confidence: 0.9770544

00:14:55.801 --> 00:14:57.655 patients. Before the break for

NOTE Confidence: 0.9770544

00:14:57.655 --> 00:14:59.925 any of you who missed it,

NOTE Confidence: 0.9770544

00:14:59.925 --> 00:15:01.875 there is no connection between sickle

NOTE Confidence: 0.9770544

00:15:01.875 --> 00:15:03.920 cell disease and pediatric cancers,

NOTE Confidence: 0.9770544

00:15:03.920 --> 00:15:05.680 except that our guest happens

NOTE Confidence: 0.9770544

00:15:05.680 --> 00:15:07.880 to be an expert in both.

NOTE Confidence: 0.9770544

00:15:07.880 --> 00:15:10.688 Right before the break we were

NOTE Confidence: 0.9770544

00:15:10.688 --> 00:15:13.400 talking about pediatric cancers and the fact

NOTE Confidence: 0.9770544

00:15:13.400 --> 00:15:17.285 that some kids get solid tumors.

NOTE Confidence: 0.9770544

00:15:17.290 --> 00:15:20.677 This must not be very common, right?

NOTE Confidence: 0.9770544

00:15:20.677 --> 00:15:24.646 How common are pediatric cancers?

NOTE Confidence: 0.9770544

00:15:24.650 --> 00:15:26.760 Especially the non hematologic cancers?

00:15:28.450 --> 00:15:31.187 I think of course each one of those

NOTE Confidence: 0.8816699

00:15:31.187 --> 00:15:33.378 cancers is overall pretty rare

NOTE Confidence: 0.8816699

00:15:33.378 --> 00:15:36.043 and even leukemias, which are the

NOTE Confidence: 0.8816699

00:15:36.043 --> 00:15:38.148 most common pediatric cancer we say

NOTE Confidence: 0.8816699

00:15:38.150 --> 00:15:41.111 happens one in a million.

NOTE Confidence: 0.8816699

00:15:41.111 --> 00:15:43.637 So the solid tumors are much rarer

00:15:44.906 --> 00:15:47.860 and each one has a different frequency,

NOTE Confidence: 0.8816699

00:15:47.860 --> 00:15:50.932 so it's hard to give a

NOTE Confidence: 0.8816699

00:15:50.932 --> 00:15:53.768 number for all of them combined.

00:15:55.980 --> 00:15:57.752 This is very interesting

NOTE Confidence: 0.8816699

00:15:57.752 --> 00:15:59.967 because as you may know,

NOTE Confidence: 0.8816699

00:15:59.970 --> 00:16:03.506 there's a lot of interest in rare cancers,

NOTE Confidence: 0.8816699

00:16:03.510 --> 00:16:06.862 and the NIH was looking at developing a

NOTE Confidence: 0.8816699

00:16:06.862 --> 00:16:10.393 rare Cancer Institute in order to try and

NOTE Confidence: 0.8816699

00:16:10.393 --> 00:16:13.700 improve the outcomes in these rare cancers.

NOTE Confidence: 0.8816699

00:16:13.700 --> 00:16:16.418 And when we were looking at

NOTE Confidence: 0.8816699

00:16:16.418 --> 00:16:18.570 defining what rare cancers is,

NOTE Confidence: 0.8816699

00:16:18.570 --> 00:16:21.755 it's very clear up front that every

NOTE Confidence: 0.8816699

00:16:21.755 --> 00:16:24.779 pediatric cancer is rare in that sense,

NOTE Confidence: 0.8816699

00:16:24.780 --> 00:16:26.604 but the solid tumors,

NOTE Confidence: 0.8816699

00:16:26.604 --> 00:16:27.060 particularly,

NOTE Confidence: 0.8816699

00:16:27.060 --> 00:16:30.070 many of the tumors we discussed are

00:16:33.510 --> 00:16:35.660 even much rarer than leukemia,

NOTE Confidence: 0.8816699

00:16:35.660 --> 00:16:38.279 which is already

NOTE Confidence: 0.8816699

00:16:38.280 --> 00:16:38.966 pretty uncommon.

00:16:39.310 --> 00:16:41.446 And I'm sure that every parent

NOTE Confidence: 0.98617375

00:16:41.446 --> 00:16:43.258 out there thinks that their

NOTE Confidence: 0.98617375

00:16:43.258 --> 00:16:45.136 child is one in a million,

NOTE Confidence: 0.98617375

00:16:45.140 --> 00:16:46.600 but really wouldn't want their

NOTE Confidence: 0.98617375

00:16:46.600 --> 00:16:49.375 child to be one in a million in

NOTE Confidence: 0.98617375

00:16:49.375 --> 00:16:50.626 this particular circumstance.

NOTE Confidence: 0.98617375

00:16:50.630 --> 00:16:53.087 And one of the

NOTE Confidence: 0.98617375

00:16:53.087 --> 00:16:54.739 questions that comes up and

NOTE Confidence: 0.98617375

00:16:54.740 --> 00:16:56.868 you mentioned that you had an

NOTE Confidence: 0.98617375

00:16:56.868 --> 00:16:58.860 interest in clinical trials,

NOTE Confidence: 0.98617375

00:16:58.860 --> 00:17:00.380 especially in rare tumors,

NOTE Confidence: 0.98617375

00:17:00.380 --> 00:17:03.505 is that so much of the data that

NOTE Confidence: 0.98617375

00:17:03.505 --> 00:17:06.165 we get that leads to best practice

NOTE Confidence: 0.98617375

00:17:06.165 --> 00:17:09.044 that dictates how we treat cancer

NOTE Confidence: 0.98617375

00:17:09.044 --> 00:17:10.976 comes from clinical trials.

NOTE Confidence: 0.98617375

00:17:10.980 --> 00:17:13.766 And when you have these tumors that

NOTE Confidence: 0.98617375

00:17:13.766 --> 00:17:17.256 are so rare that are one in a million,

NOTE Confidence: 0.98617375

00:17:17.260 --> 00:17:19.900 how on Earth do we get the data

NOTE Confidence: 0.98617375

00:17:19.900 --> 00:17:22.029 to actually know what's best

NOTE Confidence: 0.98617375

00:17:22.029 --> 00:17:24.334 practice to treat our children,

NOTE Confidence: 0.98617375

00:17:24.340 --> 00:17:27.084 and for every parent going through this,

NOTE Confidence: 0.98617375

00:17:27.090 --> 00:17:29.834 I mean that is their deepest anxiety.

NOTE Confidence: 0.9725143

00:17:31.160 --> 00:17:34.088 That's a very good point

NOTE Confidence: 0.9725143

00:17:34.088 --> 00:17:38.385 and I think what I must say is that in

NOTE Confidence: 0.9725143

00:17:38.385 --> 00:17:41.222 pediatric oncology we have honestly and I

NOTE Confidence: 0.9725143

00:17:41.222 --> 00:17:44.596 am not taking all the any credit for this,

NOTE Confidence: 0.9725143

00:17:44.596 --> 00:17:47.734 but we have done an amazing job at

NOTE Confidence: 0.9725143

00:17:47.734 --> 00:17:50.164 being able to conduct clinical trials

NOTE Confidence: 0.9725143

00:17:50.164 --> 00:17:53.448 and the way we've done this is through

NOTE Confidence: 0.9725143

00:17:53.448 --> 00:17:55.438 the development of a consortium

NOTE Confidence: 0.9725143

00:17:55.438 --> 00:17:57.428 called the Children's Oncology Group,

NOTE Confidence: 0.9725143

00:17:57.430 --> 00:17:59.605 which really has about 230

NOTE Confidence: 0.9725143

00:17:59.605 --> 00:18:01.345 institutions across the United States,

NOTE Confidence: 0.9725143

00:18:01.350 --> 00:18:04.255 Australia, New Zealand and Canada

NOTE Confidence: 0.9725143

00:18:04.255 --> 00:18:08.068 and the beauty of this is that

NOTE Confidence: 0.9725143

00:18:08.068 --> 00:18:10.480 as a group then we can,

NOTE Confidence: 0.9725143

00:18:10.480 --> 00:18:12.340 because each individual

NOTE Confidence: 0.9725143

00:18:12.340 --> 00:18:14.820 institution will only have

NOTE Confidence: 0.9725143

00:18:14.820 --> 00:18:17.142 a patient very rarely with a

NOTE Confidence: 0.9725143

00:18:17.142 --> 00:18:18.690 particular type of cancer,

NOTE Confidence: 0.9725143

00:18:18.690 --> 00:18:21.786 we can bring all of us together,

NOTE Confidence: 0.9725143

00:18:21.790 --> 00:18:23.932 and we can then get the numbers to

NOTE Confidence: 0.9725143

00:18:23.932 --> 00:18:26.403 be able to conduct a clinical

NOTE Confidence: 0.9725143

00:18:26.403 --> 00:18:28.367 trial and more importantly,

NOTE Confidence: 0.9725143

00:18:28.370 --> 00:18:30.315 conduct some randomized clinical trials

NOTE Confidence: 0.9725143

00:18:30.315 --> 00:18:33.340 to be able to answer the question of

NOTE Confidence: 0.9725143

00:18:33.340 --> 00:18:35.699 which treatment is the best and most

NOTE Confidence: 0.9725143

00:18:35.769 --> 00:18:38.039 appropriate for these rare cancers.

NOTE Confidence: 0.9725143

00:18:38.040 --> 00:18:40.332 So the children's Oncology Group has

NOTE Confidence: 0.9725143

00:18:40.332 --> 00:18:43.140 existed for a while and we

NOTE Confidence: 0.9725143

00:18:43.140 --> 00:18:45.145 have designed clinical trials

NOTE Confidence: 0.9725143

00:18:45.150 --> 00:18:47.436 on each type of pediatric cancer,

NOTE Confidence: 0.9725143

00:18:47.440 --> 00:18:49.305 but more recently what is happening

NOTE Confidence: 0.9725143

00:18:49.305 --> 00:18:51.630 that I am very

00:18:52.218 --> 00:18:55.667 happy to be involved with is that we are now

NOTE Confidence: 0.9725143

00:18:55.667 --> 00:18:57.715 looking at international collaborations.

NOTE Confidence: 0.9725143

00:18:57.720 --> 00:19:00.331 So for example in germ cell tumors

NOTE Confidence: 0.9725143

00:19:00.331 --> 00:19:02.766 because germ cell tumors are again so

NOTE Confidence: 0.9725143

00:19:02.766 --> 00:19:05.583 rare even in the US and Canada and

NOTE Confidence: 0.9725143

00:19:05.583 --> 00:19:08.253 Australia we cannot have the appropriate

NOTE Confidence: 0.9725143

00:19:08.253 --> 00:19:10.622 numbers to do a randomized trial.

NOTE Confidence: 0.9725143

00:19:10.622 --> 00:19:13.340 So currently we are conducting two trials,

NOTE Confidence: 0.9725143

00:19:13.340 --> 00:19:15.520 one for low risk and

NOTE Confidence: 0.9725143

00:19:15.520 --> 00:19:16.645 intermediate risk,

NOTE Confidence: 0.9725143

00:19:16.645 --> 00:19:18.895 and one for high risk.

00:19:20.380 --> 00:19:22.230 So we've collaborated with the

NOTE Confidence: 0.9725143

00:19:22.230 --> 00:19:24.150 UK with India with Australia,

NOTE Confidence: 0.9725143

00:19:24.150 --> 00:19:26.400 New Zealand and we are all

NOTE Confidence: 0.9725143

00:19:26.400 --> 00:19:27.900 running the same trials,

NOTE Confidence: 0.9725143

00:19:27.900 --> 00:19:30.908 so that again we can bring all this

NOTE Confidence: 0.9725143

00:19:30.908 --> 00:19:33.189 information together and be able to

NOTE Confidence: 0.9725143

00:19:33.189 --> 00:19:35.014 make advances for future patients.

00:19:35.396 --> 00:19:36.148 I think that's so critical.

NOTE Confidence: 0.95737374

00:19:38.020 --> 00:19:40.716 You know one of the issues that we

NOTE Confidence: 0.95737374

00:19:40.716 --> 00:19:43.296 face in adult tumors, however, is,

NOTE Confidence: 0.95737374

00:19:43.296 --> 00:19:46.400 although all of us know that clinical trials

NOTE Confidence: 0.95737374

00:19:46.400 --> 00:19:48.724 are the drivers of improved care

NOTE Confidence: 0.95737374

00:19:48.730 --> 00:19:50.728 it's how we make practice

NOTE Confidence: 0.95737374

00:19:50.730 --> 00:19:52.977 changing discovery, is that still there is

NOTE Confidence: 0.95737374

00:19:52.977 --> 00:19:55.694 a reluctance on the part of some patients

NOTE Confidence: 0.95737374

00:19:55.694 --> 00:19:57.384 to participate in clinical trials.

NOTE Confidence: 0.95737374

00:19:57.390 --> 00:20:00.575 So if you look across the board,

NOTE Confidence: 0.95737374

00:20:00.580 --> 00:20:02.770 our rate of clinical trial

NOTE Confidence: 0.95737374

00:20:02.770 --> 00:20:05.280 accrual is somewhere South of 5%,

NOTE Confidence: 0.95737374

00:20:05.280 --> 00:20:08.376 and with children I mean I can imagine

NOTE Confidence: 0.95737374

00:20:08.376 --> 00:20:10.988 that parents have obvious anxiety when

NOTE Confidence: 0.95737374

00:20:10.988 --> 00:20:14.240 you talk about clinical trials,

NOTE Confidence: 0.95737374

00:20:14.240 --> 00:20:17.228 but I understand that the rate

NOTE Confidence: 0.95737374

00:20:17.228 --> 00:20:18.722 is much higher for accrual

NOTE Confidence: 0.95737374

00:20:18.730 --> 00:20:20.640 to these clinical trials.

NOTE Confidence: 0.95510423

00:20:20.640 --> 00:20:22.920 Honestly in Pediatrics,

NOTE Confidence: 0.95510423

00:20:22.920 --> 00:20:24.830 the rate is significantly higher,

NOTE Confidence: 0.95510423

00:20:24.830 --> 00:20:27.493 and I think part of the reason

NOTE Confidence: 0.95510423

00:20:27.493 --> 00:20:30.920 at least at Yale,

NOTE Confidence: 0.95510423

00:20:30.920 --> 00:20:33.968 of all the patients eligible for a trial,

NOTE Confidence: 0.95510423

00:20:33.970 --> 00:20:34.724 because sometimes,

NOTE Confidence: 0.95510423

00:20:34.724 --> 00:20:37.740 of course a trial may not be available

NOTE Confidence: 0.95510423

00:20:37.816 --> 00:20:40.066 for that particular type of tumor.

NOTE Confidence: 0.95510423

00:20:40.070 --> 00:20:41.970 But for any eligible patient,

NOTE Confidence: 0.95510423

00:20:41.970 --> 00:20:45.023 we enroll up to 80% of the children

NOTE Confidence: 0.95510423

00:20:45.023 --> 00:20:47.309 who are eligible for a trial.

NOTE Confidence: 0.95510423

00:20:47.310 --> 00:20:50.054 When you're taking care of

NOTE Confidence: 0.95510423

00:20:50.060 --> 00:20:51.950 your child, who has cancer

NOTE Confidence: 0.95510423

00:20:51.950 --> 00:20:54.484 I think the motivation from the parents

NOTE Confidence: 0.95510423

00:20:54.484 --> 00:20:56.803 is very different than maybe

NOTE Confidence: 0.95510423

00:20:56.803 --> 00:20:58.748 the motivation for yourself.

NOTE Confidence: 0.95510423

00:20:58.750 --> 00:20:59.833 I'm not sure,

NOTE Confidence: 0.95510423

00:20:59.833 --> 00:21:01.999 but clearly we all do go

NOTE Confidence: 0.95510423

00:21:01.999 --> 00:21:04.418 above and beyond for our kids.

NOTE Confidence: 0.95510423

00:21:04.420 --> 00:21:06.310 Then we probably even do

NOTE Confidence: 0.9755941

00:21:06.310 --> 00:21:07.066 for ourselves.

NOTE Confidence: 0.9755941

00:21:07.066 --> 00:21:09.712 And I think that that desire

NOTE Confidence: 0.9755941

00:21:09.720 --> 00:21:12.736 to figure out the best treatment,

NOTE Confidence: 0.9755941

00:21:12.740 --> 00:21:14.954 especially when we're talking

NOTE Confidence: 0.9755941

00:21:14.954 --> 00:21:17.279 about rare diseases is so important.

NOTE Confidence: 0.9755941

00:21:17.280 --> 00:21:20.808 And I think the other piece is that

NOTE Confidence: 0.9755941

00:21:20.810 --> 00:21:22.562 parents sometimes have trepidation

NOTE Confidence: 0.9755941

00:21:22.562 --> 00:21:25.190 about what is the

NOTE Confidence: 0.9755941

00:21:25.270 --> 00:21:27.496 right answer to treat my child,

NOTE Confidence: 0.9755941

00:21:27.500 --> 00:21:29.846 especially when all of these cancers

NOTE Confidence: 0.9755941

00:21:29.846 --> 00:21:32.368 are so rare and clinical trials

NOTE Confidence: 0.9755941

00:21:32.368 --> 00:21:35.014 gives you some modicum of this

NOTE Confidence: 0.9755941

00:21:35.020 --> 00:21:37.528 actually might be best practice because,

NOTE Confidence: 0.9755941

00:21:37.530 --> 00:21:38.655 as you say,

NOTE Confidence: 0.9755941

00:21:38.655 --> 00:21:40.530 all of these professionals get

NOTE Confidence: 0.9755941

00:21:40.530 --> 00:21:42.958 together in designing these trials,

NOTE Confidence: 0.9755941

00:21:42.960 --> 00:21:46.304 so they've put in that brain trust of,

NOTE Confidence: 0.9755941

00:21:46.310 --> 00:21:49.052 you know this is potentially best

NOTE Confidence: 0.9755941

00:21:49.052 --> 00:21:51.660 practice or best practice versus

NOTE Confidence: 0.9755941

00:21:51.660 --> 00:21:54.316 what best practice will be and we want to see

NOTE Confidence: 0.9755941

00:21:54.316 --> 00:21:57.136 which is best for patients who are

NOTE Confidence: 0.9755941

00:21:57.136 --> 00:21:59.708 not candidates for a clinical trial

NOTE Confidence: 0.9755941

00:21:59.708 --> 00:22:02.613 where there still may be

NOTE Confidence: 0.9755941

00:22:02.613 --> 00:22:05.422 questions about what is best practice.

NOTE Confidence: 0.9755941

00:22:05.422 --> 00:22:08.380 How do you reassure patients and parents

NOTE Confidence: 0.9755941

00:22:08.468 --> 00:22:11.359 that this really is

NOTE Confidence: 0.9755941

00:22:11.360 --> 00:22:13.500 the way to go?

00:22:14.330 --> 00:22:16.820 Are there still collaborations where you

NOTE Confidence: 0.9755941

00:22:16.820 --> 00:22:19.916 get together with a consensus,

NOTE Confidence: 0.9755941

00:22:19.920 --> 00:22:21.604 either nationally or internationally,

NOTE Confidence: 0.9755941

00:22:21.604 --> 00:22:24.628 to figure out what might be best

NOTE Confidence: 0.9755941

00:22:24.628 --> 00:22:26.340 practice for these patients?

00:22:26.770 --> 00:22:29.584 Absolutely. I think one thing

NOTE Confidence: 0.92648417

00:22:29.584 --> 00:22:32.641 is that the best practice is obviously

NOTE Confidence: 0.92648417

00:22:32.641 --> 00:22:35.860 the standard of care in many cases.

NOTE Confidence: 0.92648417

00:22:35.860 --> 00:22:38.242 But in many cases there is

NOTE Confidence: 0.92648417

00:22:38.242 --> 00:22:40.330 no proper standard of care,

NOTE Confidence: 0.92648417

00:22:40.330 --> 00:22:43.501 but the beauty again of having these

NOTE Confidence: 0.92648417

00:22:43.501 --> 00:22:45.560 close collaborations working together

NOTE Confidence: 0.92648417

00:22:45.560 --> 00:22:48.150 on trials means that we have a

NOTE Confidence: 0.92648417

00:22:48.150 --> 00:22:50.099 really great phenomenal community of

NOTE Confidence: 0.92648417

00:22:50.099 --> 00:22:52.780 oncologists that you can call upon to

NOTE Confidence: 0.92648417

00:22:52.780 --> 00:22:54.988 discuss and get guidance on in

NOTE Confidence: 0.92648417

00:22:54.988 --> 00:22:56.960 really rare cases.

NOTE Confidence: 0.92648417

00:22:56.960 --> 00:22:59.730 So I think that is a really

NOTE Confidence: 0.92648417

00:22:59.810 --> 00:23:02.690 fulfilling part of being able to

NOTE Confidence: 0.92648417

00:23:02.690 --> 00:23:05.052 connect with friends and colleagues across

NOTE Confidence: 0.92648417

00:23:05.052 --> 00:23:07.621 the country, across the world to be

NOTE Confidence: 0.92648417

00:23:07.621 --> 00:23:09.880 able to discuss some difficult cases.

NOTE Confidence: 0.92648417

00:23:09.880 --> 00:23:12.880 What is really fun is

NOTE Confidence: 0.92648417

00:23:12.880 --> 00:23:15.660 we've now developed these virtual

NOTE Confidence: 0.92648417

00:23:15.660 --> 00:23:16.707 International tumor boards

NOTE Confidence: 0.92648417

00:23:16.707 --> 00:23:19.150 for some of these really rare cancers,

NOTE Confidence: 0.92648417

00:23:19.150 --> 00:23:21.243 so we have an international tumor board

NOTE Confidence: 0.92648417

00:23:21.243 --> 00:23:22.990 for patients with hepatoblastoma,

NOTE Confidence: 0.92648417

00:23:22.990 --> 00:23:24.845 where experts from across the

NOTE Confidence: 0.92648417

00:23:24.845 --> 00:23:27.301 country meet once a month and you

NOTE Confidence: 0.92648417

00:23:27.301 --> 00:23:29.405 can put in a case and they will

NOTE Confidence: 0.92648417

00:23:29.479 --> 00:23:31.709 review everything and discuss it,

NOTE Confidence: 0.92648417

00:23:31.710 --> 00:23:34.860 just like we do at a local tumor board.

NOTE Confidence: 0.92648417

00:23:34.860 --> 00:23:35.187 Similarly,

NOTE Confidence: 0.92648417

00:23:35.187 --> 00:23:37.476 we have a rare tumor board

NOTE Confidence: 0.92648417

00:23:37.476 --> 00:23:39.389 which is across the country,

NOTE Confidence: 0.92648417

00:23:39.390 --> 00:23:40.110 so again,

NOTE Confidence: 0.92648417

00:23:40.110 --> 00:23:43.461 people do go above and beyond to try and

NOTE Confidence: 0.92648417

00:23:43.461 --> 00:23:46.525 put in their time and effort to bring their

NOTE Confidence: 0.92648417

00:23:46.530 --> 00:23:48.720 thoughts and their experience to help

NOTE Confidence: 0.92648417

00:23:48.720 --> 00:23:50.839 kids across the country and across

NOTE Confidence: 0.98801035

00:23:50.840 --> 00:23:53.790 the world.

NOTE Confidence: 0.98801035

00:23:53.869 --> 00:23:56.575 I love the fact that there is such humility

NOTE Confidence: 0.98801035

00:23:56.580 --> 00:23:59.022 among pediatric oncologists to

NOTE Confidence: 0.98801035

00:23:59.022 --> 00:24:01.609 really collaborate with each other and to

NOTE Confidence: 0.98801035

00:24:01.609 --> 00:24:04.120 figure out what's the best for this child.

NOTE Confidence: 0.98801035

00:24:04.120 --> 00:24:06.850 Which is so important and so

NOTE Confidence: 0.98801035

00:24:06.850 --> 00:24:09.450 heartening for parents going through this.

NOTE Confidence: 0.98801035

00:24:09.450 --> 00:24:12.114 Now I did promise that we'd

NOTE Confidence: 0.98801035

00:24:12.114 --> 00:24:14.783 spend at least a few minutes

NOTE Confidence: 0.98801035

00:24:14.783 --> 00:24:17.178 talking about your other passion,

NOTE Confidence: 0.98801035

00:24:17.180 --> 00:24:19.586 which is sickle cell disease and

NOTE Confidence: 0.98801035

00:24:19.586 --> 00:24:22.069 sickle cell disease is still rare,

NOTE Confidence: 0.98801035

00:24:22.070 --> 00:24:23.698 but presumably less rare

NOTE Confidence: 0.98801035

00:24:23.698 --> 00:24:24.919 than pediatric cancers.

NOTE Confidence: 0.98801035

00:24:24.920 --> 00:24:27.440 Is that right?

NOTE Confidence: 0.9396146

00:24:27.440 --> 00:24:30.840 I think it is rarer than pediatric cancers,

NOTE Confidence: 0.9396146

00:24:30.840 --> 00:24:33.416 and in the US now with

NOTE Confidence: 0.9396146

00:24:33.416 --> 00:24:35.959 also a changing demographic,

NOTE Confidence: 0.9396146

00:24:35.960 --> 00:24:38.655 we have patients of many

NOTE Confidence: 0.9396146

00:24:38.655 --> 00:24:40.811 different ethnicities who can

NOTE Confidence: 0.9396146

00:24:40.811 --> 00:24:44.009 also have sickle cell disease so

NOTE Confidence: 0.9396146

00:24:44.010 --> 00:24:47.405 it's definitely something that we

NOTE Confidence: 0.9396146

00:24:47.410 --> 00:24:50.874 in Connecticut see 24 to 26 new

NOTE Confidence: 0.9396146

00:24:50.874 --> 00:24:53.387 diagnoses of sickle cell disease

NOTE Confidence: 0.9396146

00:24:53.387 --> 00:24:56.999 each year and about 600 new patients

NOTE Confidence: 0.9396146

00:24:57.098 --> 00:25:00.050 with sickle cell trait per year.

00:25:07.210 --> 00:25:09.554 Talk a little

NOTE Confidence: 0.98500466

00:25:09.554 --> 00:25:11.998 bit about sickle cell disease and

NOTE Confidence: 0.98500466

00:25:11.998 --> 00:25:14.429 the problems that people can run into.

NOTE Confidence: 0.98500466

00:25:14.430 --> 00:25:16.719 I mean, when people think about cancer,

NOTE Confidence: 0.98500466

00:25:16.720 --> 00:25:19.107 you really don't need to say anything

NOTE Confidence: 0.98500466

00:25:19.107 --> 00:25:21.639 more than cancer for it to strike

NOTE Confidence: 0.98500466

00:25:21.639 --> 00:25:23.940 the fear of God into some people.

NOTE Confidence: 0.98500466

00:25:23.940 --> 00:25:26.190 But what problems do people with

NOTE Confidence: 0.98500466

00:25:26.190 --> 00:25:28.442 sickle cell disease run into that

NOTE Confidence: 0.98500466

00:25:28.442 --> 00:25:30.488 are problematic and talk a

NOTE Confidence: 0.98500466

00:25:30.488 --> 00:25:32.886 little bit about some of the new

NOTE Confidence: 0.98500466

00:25:32.886 --> 00:25:34.526 therapies that are out now?

NOTE Confidence: 0.9453884

00:25:37.170 --> 00:25:39.810 So sickle cell disease

NOTE Confidence: 0.9453884

00:25:39.810 --> 00:25:42.010 interestingly, is the first single

NOTE Confidence: 0.9453884

00:25:42.010 --> 00:25:44.210 gene disorder that was described

NOTE Confidence: 0.9453884

00:25:44.210 --> 00:25:48.170 over 120 years ago.

00:25:49.334 --> 00:25:52.050 It is a lifelong chronic disease that

NOTE Confidence: 0.9453884

00:25:52.127 --> 00:25:54.863 obviously you inherit from your parents

NOTE Confidence: 0.9453884

00:25:54.863 --> 00:25:58.289 and the hallmarks of sickle cell disease

NOTE Confidence: 0.9453884

00:25:58.290 --> 00:26:01.810 are these painful crises,

NOTE Confidence: 0.9453884

00:26:01.810 --> 00:26:04.065 which really mean that patients

NOTE Confidence: 0.9453884

00:26:04.065 --> 00:26:05.869 with sickle cell disease

NOTE Confidence: 0.9453884

00:26:05.870 --> 00:26:09.134 can come into the hospital or have pain

NOTE Confidence: 0.9453884

00:26:09.134 --> 00:26:12.560 at home several times a year.

NOTE Confidence: 0.9453884

00:26:12.560 --> 00:26:15.038 These chronic VS occlusive crises can

NOTE Confidence: 0.9453884

00:26:15.038 --> 00:26:17.750 also lead to multiple complications,

NOTE Confidence: 0.9453884

00:26:17.750 --> 00:26:20.576 including stroke

NOTE Confidence: 0.9453884

00:26:20.580 --> 00:26:23.884 and acute chest syndrome.

NOTE Confidence: 0.9453884

00:26:28.810 --> 00:26:32.430 You can also have a lot of long term chronic

NOTE Confidence: 0.9453884

00:26:32.514 --> 00:26:35.556 morbidity because of this ongoing

NOTE Confidence: 0.9453884

00:26:35.560 --> 00:26:37.248 microvascular occlusion that happens in

NOTE Confidence: 0.9453884

00:26:37.248 --> 00:26:38.936 all your organ systems.

NOTE Confidence: 0.9453884

00:26:38.940 --> 00:26:41.649 So patients with sickle cell disease can

NOTE Confidence: 0.9453884

00:26:41.649 --> 00:26:44.848 have long term problems with their kidneys,

NOTE Confidence: 0.9453884

00:26:44.850 --> 00:26:46.454 leading to sickle nephropathy.

NOTE Confidence: 0.9453884

00:26:46.454 --> 00:26:48.860 They can have problems with their

NOTE Confidence: 0.9453884

00:26:48.924 --> 00:26:51.179 liver leading to sickle hepatopathy.

NOTE Confidence: 0.9453884

00:26:51.180 --> 00:26:53.290 They can have sickle retinopathy,

NOTE Confidence: 0.9453884

00:26:53.290 --> 00:26:55.996 so it's a disease which has

NOTE Confidence: 0.9453884

00:26:55.996 --> 00:26:57.800 acute complications which brings

NOTE Confidence: 0.9453884

00:26:57.876 --> 00:26:59.680 someone to the hospital.

NOTE Confidence: 0.9453884

00:26:59.680 --> 00:27:02.865 But also has ongoing long term chronic

NOTE Confidence: 0.9453884

00:27:02.865 --> 00:27:05.672 disease burden which continues to affect

NOTE Confidence: 0.9453884

00:27:05.672 --> 00:27:09.320 pretty much every organ system in their body.

NOTE Confidence: 0.9453884

00:27:09.320 --> 00:27:13.543 So it is a disease

NOTE Confidence: 0.9453884

00:27:13.543 --> 00:27:17.575 where you have to pay attention to

NOTE Confidence: 0.9453884

00:27:17.580 --> 00:27:20.340 obviously the acute management during pain,

NOTE Confidence: 0.9453884

00:27:20.340 --> 00:27:21.256 crisis, stroke,

NOTE Confidence: 0.9453884

00:27:21.256 --> 00:27:23.015 acute chest syndrome, etc.

NOTE Confidence: 0.9453884

00:27:23.015 --> 00:27:26.480 but you also have to take care of these

NOTE Confidence: 0.9453884

00:27:26.571 --> 00:27:30.249 adults and children for preventative care.

NOTE Confidence: 0.9453884

00:27:30.250 --> 00:27:32.861 To make sure that you are monitoring

NOTE Confidence: 0.9453884

00:27:32.861 --> 00:27:35.620 for these long term complications and

NOTE Confidence: 0.9453884

00:27:35.620 --> 00:27:38.225 you are intervening when feasible.

00:27:38.622 --> 00:27:41.758 But the good part about sickle

NOTE Confidence: 0.9453884

00:27:41.758 --> 00:27:44.619 cell disease or the exciting part

NOTE Confidence: 0.9453884

00:27:44.619 --> 00:27:48.141 currently is that we have a lot of new

NOTE Confidence: 0.9453884

00:27:48.141 --> 00:27:50.382 therapies which have come about in

NOTE Confidence: 0.9453884

00:27:50.382 --> 00:27:53.518 order to improve not only the pain crises,

00:27:54.489 --> 00:27:56.427 the FDA has now approved several

NOTE Confidence: 0.9453884

00:27:56.427 --> 00:27:58.610 new drugs besides hydroxyurea,

NOTE Confidence: 0.9453884

00:27:58.610 --> 00:28:00.969 which was the only drug available for

NOTE Confidence: 0.9453884

00:28:00.969 --> 00:28:03.709 a long time to

NOTE Confidence: 0.9453884

00:28:03.710 --> 00:28:06.314 modify sickle cell disease and the

NOTE Confidence: 0.9453884

00:28:06.314 --> 00:28:08.620 most exciting thing really is the

NOTE Confidence: 0.9453884

00:28:08.620 --> 00:28:10.360 advent of bone marrow transplant,

NOTE Confidence: 0.9453884

00:28:10.360 --> 00:28:12.622 which is currently the only curative

NOTE Confidence: 0.9453884

00:28:12.622 --> 00:28:14.834 option for sickle cell disease but

NOTE Confidence: 0.9453884

00:28:14.834 --> 00:28:17.074 also gene therapy and many of you

NOTE Confidence: 0.9453884

00:28:17.074 --> 00:28:19.406 might have seen data on gene therapy,

00:28:20.349 --> 00:28:22.540 some case reports of gene therapy for

NOTE Confidence: 0.9453884

00:28:22.606 --> 00:28:24.712 sickle cell disease which is exciting

NOTE Confidence: 0.9453884

00:28:24.712 --> 00:28:27.285 and we are looking forward to that

NOTE Confidence: 0.9453884

00:28:27.285 --> 00:28:29.499 becoming more streamlined in the next

NOTE Confidence: 0.9662784

00:28:29.500 --> 00:28:31.366 few years.

NOTE Confidence: 0.9662784

00:28:31.366 --> 00:28:33.416 Dr. Pashankar is an associate professor of

NOTE Confidence: 0.9662784

00:28:33.416 --> 00:28:34.912 Pediatrics in hematology oncology

NOTE Confidence: 0.9662784

00:28:34.912 --> 00:28:37.159 at the Yale School of Medicine.

NOTE Confidence: 0.9662784

00:28:37.160 --> 00:28:38.692 If you have questions

NOTE Confidence: 0.9662784

00:28:38.692 --> 00:28:40.224 the address is canceranswers@yale.edu

NOTE Confidence: 0.9662784

00:28:40.224 --> 00:28:42.342 and past editions of the program

NOTE Confidence: 0.9662784

00:28:42.342 --> 00:28:44.274 are available in audio and written

NOTE Confidence: 0.9662784

00:28:44.337 --> 00:28:45.948 form at yalecancercenter.org.

NOTE Confidence: 0.9662784

00:28:45.950 --> 00:28:48.422 We hope you'll join us next week to

NOTE Confidence: 0.9662784

00:28:48.422 --> 00:28:50.800 learn more about the fight against

NOTE Confidence: 0.9662784

00:28:50.800 --> 00:28:52.915 cancer here on Connecticut Public

NOTE Confidence: 0.9662784

00:28:52.915 --> 00:28:55.020 radio. Funding for Yale Cancer

NOTE Confidence: 0.9662784

00:28:55.020 --> 00:28:57.035 Answers is provided by Smilow

NOTE Confidence: 0.9662784

00:28:57.035 --> 00:29:00.072 Cancer Hospital and AstraZeneca.