

WEBVTT

NOTE duration:"00:31:06"

NOTE recognizability:0.836

NOTE language:en-us

NOTE Confidence: 0.913097666363636

00:00:15.280 --> 00:00:16.725 Welcome back after this session,

NOTE Confidence: 0.913097666363636

00:00:16.725 --> 00:00:18.540 we'll take a break for lunch.

NOTE Confidence: 0.913097666363636

00:00:18.540 --> 00:00:20.466 Please feel free to watch the

NOTE Confidence: 0.913097666363636

00:00:20.466 --> 00:00:22.121 prerecorded videos under the thank

NOTE Confidence: 0.913097666363636

00:00:22.121 --> 00:00:24.326 You Video tab or connect with other

NOTE Confidence: 0.913097666363636

00:00:24.326 --> 00:00:26.177 attendees using the attendee tab tab.

NOTE Confidence: 0.913097666363636

00:00:26.180 --> 00:00:28.290 This session is being recorded. Thank you.

NOTE Confidence: 0.829803725454546

00:00:33.070 --> 00:00:35.782 Hi everyone, it's my distinct pleasure

NOTE Confidence: 0.829803725454546

00:00:35.782 --> 00:00:38.195 to welcome Doctor Nora Toro who

NOTE Confidence: 0.829803725454546

00:00:38.195 --> 00:00:39.770 is going to be our next speaker.

NOTE Confidence: 0.829803725454546

00:00:39.770 --> 00:00:42.056 She's professor of medicine and chief

NOTE Confidence: 0.829803725454546

00:00:42.056 --> 00:00:45.200 of the division of GI and Liver and the

NOTE Confidence: 0.829803725454546

00:00:45.200 --> 00:00:47.390 NEO capitalist chair in liver disease

NOTE Confidence: 0.829803725454546

00:00:47.390 --> 00:00:49.979 at Keck School of Medicine at USC.
NOTE Confidence: 0.829803725454546

00:00:49.980 --> 00:00:52.740 Doctor thorough, please go ahead.
NOTE Confidence: 0.829803725454546

00:00:52.740 --> 00:00:54.420 Wonderful, well I want to first
NOTE Confidence: 0.829803725454546

00:00:54.420 --> 00:00:56.280 of all thank the organizers for
NOTE Confidence: 0.829803725454546

00:00:56.280 --> 00:00:58.296 this very very kind of itation.
NOTE Confidence: 0.829803725454546

00:00:58.300 --> 00:01:00.460 I'm excited to be here.
NOTE Confidence: 0.829803725454546

00:01:00.460 --> 00:01:05.572 And I'm hoping that you can see my screen.
NOTE Confidence: 0.829803725454546

00:01:05.580 --> 00:01:06.728 Hang on one SEC.
NOTE Confidence: 0.846385407

00:01:10.190 --> 00:01:11.678 OK, great all right.
NOTE Confidence: 0.846385407

00:01:11.678 --> 00:01:13.910 Can you all see my screen?
NOTE Confidence: 0.846385407

00:01:13.910 --> 00:01:16.558 I'll put it up on the big screen, OK?
NOTE Confidence: 0.846385407

00:01:16.558 --> 00:01:17.898 Right, so first of all,
NOTE Confidence: 0.846385407

00:01:17.900 --> 00:01:19.814 thank you and I really enjoyed
NOTE Confidence: 0.846385407

00:01:19.814 --> 00:01:21.759 listening to the talks before me.
NOTE Confidence: 0.846385407

00:01:21.760 --> 00:01:24.289 You're going to see that as I give you
NOTE Confidence: 0.846385407

00:01:24.289 --> 00:01:27.503 my view as a clinician here on the unmet

NOTE Confidence: 0.846385407

00:01:27.503 --> 00:01:29.629 clinical needs that there's a lot of

NOTE Confidence: 0.846385407

00:01:29.629 --> 00:01:31.872 a lot of what was presented already.

NOTE Confidence: 0.846385407

00:01:31.872 --> 00:01:34.578 Sort of speaks to already understanding

NOTE Confidence: 0.846385407

00:01:34.578 --> 00:01:36.441 these clinical needs and and

NOTE Confidence: 0.846385407

00:01:36.441 --> 00:01:38.223 carving a path forward in terms

NOTE Confidence: 0.846385407

00:01:38.223 --> 00:01:40.127 of research to address them.

NOTE Confidence: 0.846385407

00:01:40.130 --> 00:01:43.050 But I definitely put on my my clinician

NOTE Confidence: 0.846385407

00:01:43.050 --> 00:01:46.007 hat here to put together this talk for

NOTE Confidence: 0.846385407

00:01:46.007 --> 00:01:48.239 you and I'm going to start by just.

NOTE Confidence: 0.846385407

00:01:48.240 --> 00:01:51.019 Focusing on really the disease burden of

NOTE Confidence: 0.846385407

00:01:51.019 --> 00:01:54.037 the future and shown here in this study

NOTE Confidence: 0.846385407

00:01:54.037 --> 00:01:55.836 that was actually done out of Ontario,

NOTE Confidence: 0.846385407

00:01:55.840 --> 00:01:57.920 Canada using a provincial

NOTE Confidence: 0.846385407

00:01:57.920 --> 00:02:00.000 database but very much,

NOTE Confidence: 0.846385407

00:02:00.000 --> 00:02:01.728 I think mirrors what we're seeing

NOTE Confidence: 0.846385407

00:02:01.728 --> 00:02:04.110 here in the United States and often in
NOTE Confidence: 0.846385407

00:02:04.110 --> 00:02:06.126 other countries and what they did in
NOTE Confidence: 0.846385407

00:02:06.126 --> 00:02:09.212 this study was they looked at incident
NOTE Confidence: 0.846385407

00:02:09.212 --> 00:02:12.020 rates of cirrhosis by etiology,
NOTE Confidence: 0.846385407

00:02:12.020 --> 00:02:14.250 using a validated algorithm for
NOTE Confidence: 0.846385407

00:02:14.250 --> 00:02:16.480 identifying new cases of cirrhosis.
NOTE Confidence: 0.846385407

00:02:16.480 --> 00:02:18.520 And they looked at observed data
NOTE Confidence: 0.846385407

00:02:18.520 --> 00:02:19.880 from 20 to 2017.
NOTE Confidence: 0.846385407

00:02:19.880 --> 00:02:22.360 And then use that to project what the
NOTE Confidence: 0.846385407

00:02:22.360 --> 00:02:24.112 liver disease burden in the future
NOTE Confidence: 0.846385407

00:02:24.112 --> 00:02:26.188 is going to be and not a surprise
NOTE Confidence: 0.846385407

00:02:26.188 --> 00:02:27.700 to anyone in in this conference,
NOTE Confidence: 0.846385407

00:02:27.700 --> 00:02:30.140 is the overall incidence of
NOTE Confidence: 0.846385407

00:02:30.140 --> 00:02:32.580 cirrhosis is on the rise.
NOTE Confidence: 0.846385407

00:02:32.580 --> 00:02:34.656 And most impressively non-alcoholic
NOTE Confidence: 0.846385407

00:02:34.656 --> 00:02:36.732 fatty liver disease really

NOTE Confidence: 0.846385407
00:02:36.732 --> 00:02:38.660 is dominating the picture,
NOTE Confidence: 0.846385407
00:02:38.660 --> 00:02:40.956 as we can see as we move
NOTE Confidence: 0.846385407
00:02:40.956 --> 00:02:42.360 on more towards 2040,
NOTE Confidence: 0.846385407
00:02:42.360 --> 00:02:45.300 and they projected in the study that
NOTE Confidence: 0.846385407
00:02:45.300 --> 00:02:48.280 if we look towards 2040 police,
NOTE Confidence: 0.846385407
00:02:48.280 --> 00:02:50.780 75% of the liver disease.
NOTE Confidence: 0.846385407
00:02:50.780 --> 00:02:52.420 Burden in terms of incidence,
NOTE Confidence: 0.846385407
00:02:52.420 --> 00:02:55.962 cirrhosis is going to be from non
NOTE Confidence: 0.846385407
00:02:55.962 --> 00:02:57.392 alcoholic fatty liver disease and
NOTE Confidence: 0.846385407
00:02:57.392 --> 00:02:59.770 if we look at non alcoholic and
NOTE Confidence: 0.846385407
00:02:59.770 --> 00:03:01.230 alcohol associated liver disease,
NOTE Confidence: 0.846385407
00:03:01.230 --> 00:03:03.498 over 90% of liver disease burden,
NOTE Confidence: 0.846385407
00:03:03.500 --> 00:03:05.300 this is related to cirrhosis is
NOTE Confidence: 0.846385407
00:03:05.300 --> 00:03:06.991 really what we're going to be
NOTE Confidence: 0.846385407
00:03:06.991 --> 00:03:08.775 facing in 2040 that really served
NOTE Confidence: 0.846385407

00:03:08.775 --> 00:03:11.088 as a strong backdrop to what I'm
NOTE Confidence: 0.846385407

00:03:11.088 --> 00:03:12.788 going to be presenting today,
NOTE Confidence: 0.846385407

00:03:12.790 --> 00:03:14.986 which you'll see is quite focused
NOTE Confidence: 0.846385407

00:03:14.986 --> 00:03:17.070 on these two disease entities
NOTE Confidence: 0.846385407

00:03:17.070 --> 00:03:19.080 where the clinical needs are in
NOTE Confidence: 0.846385407

00:03:19.080 --> 00:03:20.860 terms of patients with NAFLD.
NOTE Confidence: 0.846385407

00:03:20.860 --> 00:03:23.730 And those with alcohol associated
NOTE Confidence: 0.846385407

00:03:23.730 --> 00:03:24.878 liver disease.
NOTE Confidence: 0.846385407

00:03:24.880 --> 00:03:27.134 So I'm going to start with Nash
NOTE Confidence: 0.846385407

00:03:27.134 --> 00:03:30.151 and what I'm going to try to do is
NOTE Confidence: 0.846385407

00:03:30.151 --> 00:03:32.757 just highlight which in the sort of
NOTE Confidence: 0.846385407

00:03:32.757 --> 00:03:34.504 day-to-day working of a hepatologist
NOTE Confidence: 0.846385407

00:03:34.504 --> 00:03:36.740 the things that are challenging for us,
NOTE Confidence: 0.846385407

00:03:36.740 --> 00:03:38.882 and I think the first is really
NOTE Confidence: 0.846385407

00:03:38.882 --> 00:03:40.799 managing the high disease burden.
NOTE Confidence: 0.846385407

00:03:40.800 --> 00:03:42.792 We projected that one out of

NOTE Confidence: 0.846385407

00:03:42.792 --> 00:03:44.760 every four patients has snaffled.

NOTE Confidence: 0.846385407

00:03:44.760 --> 00:03:45.935 There's clearly not enough hepatologists

NOTE Confidence: 0.846385407

00:03:45.935 --> 00:03:48.020 in the world to see all of these patients,

NOTE Confidence: 0.846385407

00:03:48.020 --> 00:03:50.603 so on we know that we have to triage

NOTE Confidence: 0.846385407

00:03:50.603 --> 00:03:52.924 towards seeing those that have the

NOTE Confidence: 0.846385407

00:03:52.924 --> 00:03:54.884 more advanced stages of fibrosis.

NOTE Confidence: 0.846385407

00:03:54.890 --> 00:03:56.366 For liver related complications,

NOTE Confidence: 0.846385407

00:03:56.366 --> 00:03:58.985 there's been some work done on terms

NOTE Confidence: 0.846385407

00:03:58.985 --> 00:04:01.055 of defining algorithms that can be

NOTE Confidence: 0.846385407

00:04:01.055 --> 00:04:03.535 applied in primary care to help triage

NOTE Confidence: 0.846385407

00:04:03.535 --> 00:04:05.260 those that go towards hepatology.

NOTE Confidence: 0.846385407

00:04:05.260 --> 00:04:08.452 I'm just showing you one very

NOTE Confidence: 0.846385407

00:04:08.452 --> 00:04:10.580 more recent paper that

NOTE Confidence: 0.773137781333333

00:04:10.682 --> 00:04:13.237 just used A-fib four and.

NOTE Confidence: 0.773137781333333

00:04:13.240 --> 00:04:15.260 Enhanced liver fibrosis or elf,

NOTE Confidence: 0.773137781333333

00:04:15.260 --> 00:04:17.648 in order to triage patients towards
NOTE Confidence: 0.773137781333333

00:04:17.648 --> 00:04:20.360 hepatology and you can see in the
NOTE Confidence: 0.773137781333333

00:04:20.360 --> 00:04:22.810 figure on the right that it successfully
NOTE Confidence: 0.773137781333333

00:04:22.879 --> 00:04:25.501 reduced the number of of unnecessary
NOTE Confidence: 0.773137781333333

00:04:25.501 --> 00:04:27.472 referrals from 92% down to 70.
NOTE Confidence: 0.773137781333333

00:04:27.472 --> 00:04:29.906 But I would argue that 70 is still
NOTE Confidence: 0.773137781333333

00:04:29.906 --> 00:04:32.426 a pretty big number in terms of
NOTE Confidence: 0.773137781333333

00:04:32.426 --> 00:04:34.461 inappropriate referrals and so clearly
NOTE Confidence: 0.773137781333333

00:04:34.461 --> 00:04:36.861 these kinds of algorithms which are
NOTE Confidence: 0.773137781333333

00:04:36.870 --> 00:04:38.424 really very fundamental to how we're
NOTE Confidence: 0.773137781333333

00:04:38.424 --> 00:04:40.440 going to be dealing with disease burden,
NOTE Confidence: 0.773137781333333

00:04:40.440 --> 00:04:44.200 remain to be optimized.
NOTE Confidence: 0.773137781333333

00:04:44.200 --> 00:04:45.994 And then the second thing has
NOTE Confidence: 0.773137781333333

00:04:45.994 --> 00:04:47.580 been highlighted by other talks.
NOTE Confidence: 0.773137781333333

00:04:47.580 --> 00:04:51.040 Is that clearly NAFLD is a
NOTE Confidence: 0.773137781333333

00:04:51.040 --> 00:04:52.300 very heterogeneous disease,

NOTE Confidence: 0.773137781333333
00:04:52.300 --> 00:04:55.476 we we lump it all under one umbrella.
NOTE Confidence: 0.773137781333333
00:04:55.480 --> 00:04:58.322 But we understand that within the Group
NOTE Confidence: 0.773137781333333
00:04:58.322 --> 00:05:00.938 of individuals who have NAFLD or Nash,
NOTE Confidence: 0.773137781333333
00:05:00.940 --> 00:05:02.668 that they they differ in terms
NOTE Confidence: 0.773137781333333
00:05:02.668 --> 00:05:04.300 of their metabolic risk factors,
NOTE Confidence: 0.773137781333333
00:05:04.300 --> 00:05:05.986 their genetic polymorphisms,
NOTE Confidence: 0.773137781333333
00:05:05.986 --> 00:05:09.920 whether they use alcohol and other factors.
NOTE Confidence: 0.773137781333333
00:05:09.920 --> 00:05:11.327 And even though we're we end up
NOTE Confidence: 0.773137781333333
00:05:11.327 --> 00:05:13.066 at the same place with Nash and
NOTE Confidence: 0.773137781333333
00:05:13.066 --> 00:05:14.692 fibrosis being the entity of greatest.
NOTE Confidence: 0.773137781333333
00:05:14.700 --> 00:05:16.615 Concern we understand that this
NOTE Confidence: 0.773137781333333
00:05:16.615 --> 00:05:18.530 is a very heterogeneous patient
NOTE Confidence: 0.773137781333333
00:05:18.598 --> 00:05:20.896 population and I think not refining
NOTE Confidence: 0.773137781333333
00:05:20.896 --> 00:05:22.850 our phenotyping of patients has
NOTE Confidence: 0.773137781333333
00:05:22.850 --> 00:05:24.968 actually contributed to some of the
NOTE Confidence: 0.773137781333333

00:05:24.968 --> 00:05:27.470 challenges we have in terms of both
NOTE Confidence: 0.773137781333333

00:05:27.470 --> 00:05:29.270 drug development and clinical care.
NOTE Confidence: 0.773137781333333

00:05:29.270 --> 00:05:31.190 So if you look on the left where
NOTE Confidence: 0.773137781333333

00:05:31.190 --> 00:05:32.310 I see us today,
NOTE Confidence: 0.773137781333333

00:05:32.310 --> 00:05:34.900 as we have all the individuals that
NOTE Confidence: 0.773137781333333

00:05:34.900 --> 00:05:36.470 meet a histological definition,
NOTE Confidence: 0.773137781333333

00:05:36.470 --> 00:05:39.690 for example of of Nash with significant
NOTE Confidence: 0.773137781333333

00:05:39.690 --> 00:05:42.252 activity and or fibrosis that
NOTE Confidence: 0.773137781333333

00:05:42.252 --> 00:05:44.344 we're targeting for interventions.
NOTE Confidence: 0.773137781333333

00:05:44.350 --> 00:05:45.540 And yet we know that.
NOTE Confidence: 0.773137781333333

00:05:45.540 --> 00:05:46.188 In the future,
NOTE Confidence: 0.773137781333333

00:05:46.188 --> 00:05:48.040 we really are going to have different groups.
NOTE Confidence: 0.773137781333333

00:05:48.040 --> 00:05:49.558 They're going to need a different
NOTE Confidence: 0.773137781333333

00:05:49.558 --> 00:05:50.317 kind of treatment,
NOTE Confidence: 0.773137781333333

00:05:50.320 --> 00:05:52.560 and I think there's a lot of interest
NOTE Confidence: 0.773137781333333

00:05:52.560 --> 00:05:54.754 and and work being done around

NOTE Confidence: 0.773137781333333
00:05:54.754 --> 00:05:56.714 doing both molecular and genetic
NOTE Confidence: 0.773137781333333
00:05:56.714 --> 00:05:58.541 genomic profiling of patients with
NOTE Confidence: 0.773137781333333
00:05:58.541 --> 00:06:01.116 NAFLD so we can actually get to
NOTE Confidence: 0.773137781333333
00:06:01.116 --> 00:06:03.180 that more refined phenotyping.
NOTE Confidence: 0.773137781333333
00:06:03.180 --> 00:06:06.052 That's going to allow us to do better
NOTE Confidence: 0.773137781333333
00:06:06.052 --> 00:06:08.660 clinical care and clearly do, you know,
NOTE Confidence: 0.773137781333333
00:06:08.660 --> 00:06:10.560 better drug development as well.
NOTE Confidence: 0.773137781333333
00:06:10.560 --> 00:06:12.275 You are are very aware that there
NOTE Confidence: 0.773137781333333
00:06:12.275 --> 00:06:14.014 are are near over 100 compounds
NOTE Confidence: 0.773137781333333
00:06:14.014 --> 00:06:15.904 that are somewhere between phase one
NOTE Confidence: 0.773137781333333
00:06:15.904 --> 00:06:17.820 and phase three drug development.
NOTE Confidence: 0.773137781333333
00:06:17.820 --> 00:06:18.886 For Nash,
NOTE Confidence: 0.773137781333333
00:06:18.886 --> 00:06:22.084 but we're challenging that there again,
NOTE Confidence: 0.773137781333333
00:06:22.090 --> 00:06:23.634 this heterogeneity may undermine
NOTE Confidence: 0.773137781333333
00:06:23.634 --> 00:06:25.950 the ability of those drugs to
NOTE Confidence: 0.773137781333333

00:06:26.020 --> 00:06:27.330 demonstrate efficacy.
NOTE Confidence: 0.773137781333333

00:06:27.330 --> 00:06:29.522 So I think if we have this more
NOTE Confidence: 0.773137781333333

00:06:29.522 --> 00:06:30.070 refined phenotype,
NOTE Confidence: 0.773137781333333

00:06:30.070 --> 00:06:31.799 this is really a high clinical need.
NOTE Confidence: 0.773137781333333

00:06:31.800 --> 00:06:32.676 But one also,
NOTE Confidence: 0.773137781333333

00:06:32.676 --> 00:06:34.136 that's very important for the
NOTE Confidence: 0.773137781333333

00:06:34.136 --> 00:06:35.390 clinical drug development,
NOTE Confidence: 0.773137781333333

00:06:35.390 --> 00:06:36.562 where we would hope,
NOTE Confidence: 0.773137781333333

00:06:36.562 --> 00:06:38.320 then with this refinement to see
NOTE Confidence: 0.773137781333333

00:06:38.378 --> 00:06:39.650 improved drug efficacy,
NOTE Confidence: 0.773137781333333

00:06:39.650 --> 00:06:40.745 better biomarker performance,
NOTE Confidence: 0.773137781333333

00:06:40.745 --> 00:06:42.935 and ultimately to be able to
NOTE Confidence: 0.773137781333333

00:06:42.935 --> 00:06:44.695 translate those things that we're
NOTE Confidence: 0.773137781333333

00:06:44.695 --> 00:06:46.027 learning from clinical trials
NOTE Confidence: 0.773137781333333

00:06:46.027 --> 00:06:47.828 into the clinic with greater.
NOTE Confidence: 0.773137781333333

00:06:47.830 --> 00:06:48.570 Efficiency.

NOTE Confidence: 0.873819519333333
00:06:50.880 --> 00:06:53.247 And then the other aspect of Nash is that
NOTE Confidence: 0.873819519333333
00:06:53.247 --> 00:06:55.296 we're coming to understand that Nash,
NOTE Confidence: 0.873819519333333
00:06:55.300 --> 00:07:00.280 cirrhosis and Nash disease is unlike
NOTE Confidence: 0.873819519333333
00:07:00.280 --> 00:07:02.200 the chronic liver diseases that we've
NOTE Confidence: 0.873819519333333
00:07:02.200 --> 00:07:03.480 been dealing with predominantly
NOTE Confidence: 0.873819519333333
00:07:03.532 --> 00:07:04.737 over the past two decades,
NOTE Confidence: 0.873819519333333
00:07:04.740 --> 00:07:07.140 which were largely hepatitis C.
NOTE Confidence: 0.873819519333333
00:07:07.140 --> 00:07:08.670 So in the past, hepatitis C
NOTE Confidence: 0.873819519333333
00:07:08.670 --> 00:07:09.690 was the dominant disease,
NOTE Confidence: 0.873819519333333
00:07:09.690 --> 00:07:11.650 and we knew a lot about Natural
NOTE Confidence: 0.873819519333333
00:07:11.650 --> 00:07:13.450 History related to viral hepatitis,
NOTE Confidence: 0.873819519333333
00:07:13.450 --> 00:07:15.424 and a lot of our our understanding
NOTE Confidence: 0.873819519333333
00:07:15.424 --> 00:07:17.635 of how we intervene timing of
NOTE Confidence: 0.873819519333333
00:07:17.635 --> 00:07:19.800 interventions was really based on.
NOTE Confidence: 0.873819519333333
00:07:19.800 --> 00:07:23.055 A history that's related to viral hepatitis,
NOTE Confidence: 0.873819519333333

00:07:23.060 --> 00:07:25.283 but Nash is is not like that in the
NOTE Confidence: 0.8738195193333333

00:07:25.283 --> 00:07:27.098 sense that it's a multi system,
NOTE Confidence: 0.8738195193333333

00:07:27.100 --> 00:07:27.889 a metabolic disease,
NOTE Confidence: 0.8738195193333333

00:07:27.889 --> 00:07:29.730 of which the liver is only one
NOTE Confidence: 0.8738195193333333

00:07:29.790 --> 00:07:30.978 of the organs affected,
NOTE Confidence: 0.8738195193333333

00:07:30.980 --> 00:07:33.330 and in particular the coexistence
NOTE Confidence: 0.8738195193333333

00:07:33.330 --> 00:07:34.740 of vascular disease.
NOTE Confidence: 0.8738195193333333

00:07:34.740 --> 00:07:36.567 I think makes it very interesting from
NOTE Confidence: 0.8738195193333333

00:07:36.567 --> 00:07:38.642 the point of view of understanding if
NOTE Confidence: 0.8738195193333333

00:07:38.642 --> 00:07:40.490 what we know about Natural History,
NOTE Confidence: 0.8738195193333333

00:07:40.490 --> 00:07:42.740 especially as they move towards roses
NOTE Confidence: 0.8738195193333333

00:07:42.740 --> 00:07:45.029 and its complications is going to
NOTE Confidence: 0.8738195193333333

00:07:45.029 --> 00:07:47.207 be the same because vascular disease
NOTE Confidence: 0.8738195193333333

00:07:47.207 --> 00:07:49.810 that's related to their underlying metabolic.
NOTE Confidence: 0.8738195193333333

00:07:49.810 --> 00:07:52.120 Disease may alter the presentation or
NOTE Confidence: 0.8738195193333333

00:07:52.120 --> 00:07:53.660 management of portal hypertension,

NOTE Confidence: 0.873819519333333
00:07:53.660 --> 00:07:55.476 and we are seeing clues and evidence of
NOTE Confidence: 0.873819519333333
00:07:55.476 --> 00:07:57.726 this in the studies that are coming forward,
NOTE Confidence: 0.873819519333333
00:07:57.730 --> 00:07:59.557 but I think this is an important
NOTE Confidence: 0.873819519333333
00:07:59.557 --> 00:08:01.708 clinical need that we want to know
NOTE Confidence: 0.873819519333333
00:08:01.708 --> 00:08:03.348 that the established interventions for
NOTE Confidence: 0.873819519333333
00:08:03.348 --> 00:08:04.877 cirrhosis that we've been utilizing
NOTE Confidence: 0.873819519333333
00:08:04.877 --> 00:08:07.022 for the last many decades that were
NOTE Confidence: 0.873819519333333
00:08:07.022 --> 00:08:09.554 done primarily in non Nash populations
NOTE Confidence: 0.873819519333333
00:08:09.554 --> 00:08:12.594 can now be applied equally to Nash
NOTE Confidence: 0.873819519333333
00:08:12.594 --> 00:08:15.869 patients or whether we need to refine
NOTE Confidence: 0.873819519333333
00:08:15.869 --> 00:08:18.497 our clinical management algorithms.
NOTE Confidence: 0.873819519333333
00:08:18.500 --> 00:08:19.600 So in terms of now,
NOTE Confidence: 0.873819519333333
00:08:19.600 --> 00:08:21.440 I think some of the key there's many,
NOTE Confidence: 0.873819519333333
00:08:21.440 --> 00:08:24.639 but the key unmet clinical needs would
NOTE Confidence: 0.873819519333333
00:08:24.639 --> 00:08:26.841 be to importantly have screening
NOTE Confidence: 0.873819519333333

00:08:26.841 --> 00:08:28.976 strategies that allow the appropriate
NOTE Confidence: 0.8738195193333333

00:08:28.976 --> 00:08:31.118 patient to land in the hepatologist
NOTE Confidence: 0.8738195193333333

00:08:31.118 --> 00:08:33.480 office and get the right kind of care.
NOTE Confidence: 0.8738195193333333

00:08:33.480 --> 00:08:34.968 Clearly we need to be thinking about now.
NOTE Confidence: 0.8738195193333333

00:08:34.970 --> 00:08:36.596 That sort of broadly and how
NOTE Confidence: 0.8738195193333333

00:08:36.596 --> 00:08:37.409 we're doing prevention,
NOTE Confidence: 0.8738195193333333

00:08:37.410 --> 00:08:38.736 but from the point of view
NOTE Confidence: 0.8738195193333333

00:08:38.736 --> 00:08:39.399 of the hepatologist,
NOTE Confidence: 0.8738195193333333

00:08:39.400 --> 00:08:40.768 that's an important aspect.
NOTE Confidence: 0.8738195193333333

00:08:40.768 --> 00:08:42.478 I've highlighted this need to
NOTE Confidence: 0.8738195193333333

00:08:42.478 --> 00:08:44.079 do improved phenotyping,
NOTE Confidence: 0.8738195193333333

00:08:44.080 --> 00:08:46.299 so we really have not one diagnosis,
NOTE Confidence: 0.8738195193333333

00:08:46.300 --> 00:08:47.724 but really a diagnosis,
NOTE Confidence: 0.8738195193333333

00:08:47.724 --> 00:08:49.860 but it has characterized by very.
NOTE Confidence: 0.8738195193333333

00:08:49.860 --> 00:08:51.580 Different types of patients that
NOTE Confidence: 0.8738195193333333

00:08:51.580 --> 00:08:54.297 then get a very different type of

NOTE Confidence: 0.873819519333333
00:08:54.297 --> 00:08:56.157 intervention and management clinically,
NOTE Confidence: 0.873819519333333
00:08:56.160 --> 00:08:58.736 and then again that idea that we should
NOTE Confidence: 0.873819519333333
00:08:58.736 --> 00:09:00.572 think carefully about whether the
NOTE Confidence: 0.873819519333333
00:09:00.572 --> 00:09:02.447 interventions from non Nash populations
NOTE Confidence: 0.873819519333333
00:09:02.447 --> 00:09:05.137 can be applied to our Nash populations.
NOTE Confidence: 0.873819519333333
00:09:05.140 --> 00:09:06.967 I'm going to have a little bit more about
NOTE Confidence: 0.873819519333333
00:09:06.967 --> 00:09:08.802 Nash to say as I cover a few other areas,
NOTE Confidence: 0.873819519333333
00:09:08.810 --> 00:09:10.476 but I'll leave Nash for now and
NOTE Confidence: 0.873819519333333
00:09:10.476 --> 00:09:12.124 focus on the other major liver
NOTE Confidence: 0.873819519333333
00:09:12.124 --> 00:09:13.876 disease that we're going to be
NOTE Confidence: 0.873819519333333
00:09:13.876 --> 00:09:15.795 faced with in the next two decades,
NOTE Confidence: 0.873819519333333
00:09:15.800 --> 00:09:17.240 which we're already dealing with in
NOTE Confidence: 0.873819519333333
00:09:17.240 --> 00:09:19.860 a major way. And that is alcohol.
NOTE Confidence: 0.873819519333333
00:09:19.860 --> 00:09:23.174 So in this figure what I'm showing
NOTE Confidence: 0.873819519333333
00:09:23.174 --> 00:09:25.529 are the national vital statistics
NOTE Confidence: 0.873819519333333

00:09:25.530 --> 00:09:27.980 looking at deaths among individuals
NOTE Confidence: 0.8738195193333333

00:09:27.980 --> 00:09:30.430 who have chronic liver disease.
NOTE Confidence: 0.8738195193333333

00:09:30.430 --> 00:09:32.548 But looking at it by etiology,
NOTE Confidence: 0.8738195193333333

00:09:32.550 --> 00:09:35.686 and this is based on ICD 9 codes from 2018,
NOTE Confidence: 0.8738195193333333

00:09:35.686 --> 00:09:37.310 so a relatively contemporary
NOTE Confidence: 0.8738195193333333

00:09:37.310 --> 00:09:39.340 snapshot of where we're at.
NOTE Confidence: 0.8738195193333333

00:09:39.340 --> 00:09:41.134 And my point in showing you
NOTE Confidence: 0.8738195193333333

00:09:41.134 --> 00:09:42.330 this slide was to
NOTE Confidence: 0.886050958181818

00:09:42.404 --> 00:09:45.278 emphasize that the striking thing about
NOTE Confidence: 0.886050958181818

00:09:45.278 --> 00:09:47.799 alcohol associated liver disease is that.
NOTE Confidence: 0.886050958181818

00:09:47.800 --> 00:09:50.460 It's associated with a very high mortality,
NOTE Confidence: 0.886050958181818

00:09:50.460 --> 00:09:52.245 so you can see that of those
NOTE Confidence: 0.886050958181818

00:09:52.245 --> 00:09:53.699 individuals who carried that chronic
NOTE Confidence: 0.886050958181818

00:09:53.699 --> 00:09:55.279 liver disease diagnosis in 2000,
NOTE Confidence: 0.886050958181818

00:09:55.280 --> 00:09:58.156 and 1882% of them died.
NOTE Confidence: 0.886050958181818

00:09:58.156 --> 00:09:59.876 This tells us two things.

NOTE Confidence: 0.886050958181818
00:09:59.880 --> 00:10:02.218 One is that and we know this
NOTE Confidence: 0.886050958181818
00:10:02.218 --> 00:10:04.538 from working in the clinic is
NOTE Confidence: 0.886050958181818
00:10:04.538 --> 00:10:06.374 that patients often present late.
NOTE Confidence: 0.886050958181818
00:10:06.374 --> 00:10:08.064 They present with advanced disease
NOTE Confidence: 0.886050958181818
00:10:08.064 --> 00:10:10.603 or the presenting with like severe
NOTE Confidence: 0.886050958181818
00:10:10.603 --> 00:10:11.956 alcohol associated hepatitis,
NOTE Confidence: 0.886050958181818
00:10:11.960 --> 00:10:14.580 so very severe disease with
NOTE Confidence: 0.886050958181818
00:10:14.580 --> 00:10:16.676 already associated high mortality.
NOTE Confidence: 0.886050958181818
00:10:16.680 --> 00:10:18.270 And so we're missing the
NOTE Confidence: 0.886050958181818
00:10:18.270 --> 00:10:19.224 opportunity to intervene.
NOTE Confidence: 0.886050958181818
00:10:19.230 --> 00:10:20.854 In a time where we might be able
NOTE Confidence: 0.886050958181818
00:10:20.854 --> 00:10:22.398 to reverse or prevent progression.
NOTE Confidence: 0.886050958181818
00:10:22.400 --> 00:10:24.440 So I think one of the major clinical
NOTE Confidence: 0.886050958181818
00:10:24.440 --> 00:10:26.551 needs in the realm of alcohol associated
NOTE Confidence: 0.886050958181818
00:10:26.551 --> 00:10:28.733 liver disease is to be able to
NOTE Confidence: 0.886050958181818

00:10:28.733 --> 00:10:30.503 identify disease at an earlier stage
NOTE Confidence: 0.886050958181818

00:10:30.503 --> 00:10:32.625 that we can take an opportunity then
NOTE Confidence: 0.886050958181818

00:10:32.625 --> 00:10:34.640 to to modulate that Natural History,
NOTE Confidence: 0.886050958181818

00:10:34.640 --> 00:10:37.344 and that means we both have to promote
NOTE Confidence: 0.886050958181818

00:10:37.344 --> 00:10:39.677 more screening for alcohol use disorder,
NOTE Confidence: 0.886050958181818

00:10:39.680 --> 00:10:41.440 which is the factor that sets them up
NOTE Confidence: 0.886050958181818

00:10:41.440 --> 00:10:43.058 for alcohol associated liver disease.
NOTE Confidence: 0.886050958181818

00:10:43.060 --> 00:10:45.041 But even among those who have AUD
NOTE Confidence: 0.886050958181818

00:10:45.041 --> 00:10:46.891 that were have appropriate screening
NOTE Confidence: 0.886050958181818

00:10:46.891 --> 00:10:49.246 strategies to identify those with.
NOTE Confidence: 0.886050958181818

00:10:49.250 --> 00:10:52.592 Ald before they get to these
NOTE Confidence: 0.886050958181818

00:10:52.592 --> 00:10:54.263 very advanced stages.
NOTE Confidence: 0.886050958181818

00:10:54.270 --> 00:10:54.794 And I,
NOTE Confidence: 0.886050958181818

00:10:54.794 --> 00:10:56.890 I think we we should also be aware
NOTE Confidence: 0.886050958181818

00:10:56.954 --> 00:10:58.868 that what the snapshot showed us
NOTE Confidence: 0.886050958181818

00:10:58.868 --> 00:11:01.260 in 2018 is is really not likely

NOTE Confidence: 0.886050958181818
00:11:01.260 --> 00:11:03.496 to be reflective of what we're
NOTE Confidence: 0.886050958181818
00:11:03.496 --> 00:11:05.446 going to see going forward,
NOTE Confidence: 0.886050958181818
00:11:05.450 --> 00:11:07.946 and one of the very striking things that
NOTE Confidence: 0.886050958181818
00:11:07.946 --> 00:11:10.199 occurred with the COVID-19 pandemic is
NOTE Confidence: 0.886050958181818
00:11:10.199 --> 00:11:12.159 the increase in alcohol consumption.
NOTE Confidence: 0.886050958181818
00:11:12.160 --> 00:11:15.380 That was well documented in
NOTE Confidence: 0.886050958181818
00:11:15.380 --> 00:11:16.668 epidemiological studies.
NOTE Confidence: 0.886050958181818
00:11:16.670 --> 00:11:19.486 We've seen really a spike in terms of
NOTE Confidence: 0.886050958181818
00:11:19.486 --> 00:11:22.142 the increase in alcohol use in 2019,
NOTE Confidence: 0.886050958181818
00:11:22.142 --> 00:11:24.188 more prominent younger.
NOTE Confidence: 0.886050958181818
00:11:24.188 --> 00:11:25.238 Individuals, women,
NOTE Confidence: 0.886050958181818
00:11:25.238 --> 00:11:27.078 minorities also affected and this
NOTE Confidence: 0.886050958181818
00:11:27.078 --> 00:11:29.441 study here is just to remind you
NOTE Confidence: 0.886050958181818
00:11:29.441 --> 00:11:31.359 of the impact of that one year
NOTE Confidence: 0.886050958181818
00:11:31.431 --> 00:11:33.427 increase in alcohol consumption.
NOTE Confidence: 0.886050958181818

00:11:33.430 --> 00:11:34.648 So this is a modeling study,
NOTE Confidence: 0.886050958181818

00:11:34.650 --> 00:11:37.278 but a very novel way of kind of helping
NOTE Confidence: 0.886050958181818

00:11:37.278 --> 00:11:40.229 us to understand the impact of COVID-19.
NOTE Confidence: 0.886050958181818

00:11:40.230 --> 00:11:42.183 So what they did is they modeled
NOTE Confidence: 0.886050958181818

00:11:42.183 --> 00:11:43.792 that the increase that we've
NOTE Confidence: 0.886050958181818

00:11:43.792 --> 00:11:45.208 seen in Elkins consumption.
NOTE Confidence: 0.886050958181818

00:11:45.210 --> 00:11:47.316 If it just happens for one year and then
NOTE Confidence: 0.886050958181818

00:11:47.316 --> 00:11:49.366 they go back to where they were before,
NOTE Confidence: 0.886050958181818

00:11:49.370 --> 00:11:51.512 that still would lead to an increase in the
NOTE Confidence: 0.886050958181818

00:11:51.512 --> 00:11:53.409 total number of alcohol related deaths.
NOTE Confidence: 0.886050958181818

00:11:53.410 --> 00:11:53.893 Decompensation.
NOTE Confidence: 0.886050958181818

00:11:53.893 --> 00:11:57.274 And HCC and and the longer that
NOTE Confidence: 0.886050958181818

00:11:57.274 --> 00:11:59.579 they're drinking at these higher
NOTE Confidence: 0.886050958181818

00:11:59.579 --> 00:12:02.093 levels the the greater the impact.
NOTE Confidence: 0.886050958181818

00:12:02.100 --> 00:12:04.730 So COVID-19 itself is now
NOTE Confidence: 0.886050958181818

00:12:04.730 --> 00:12:07.360 contributing more cases of alcohol,

NOTE Confidence: 0.886050958181818
00:12:07.360 --> 00:12:08.314 associated liver disease,
NOTE Confidence: 0.886050958181818
00:12:08.314 --> 00:12:10.222 and the consequences of that are
NOTE Confidence: 0.886050958181818
00:12:10.222 --> 00:12:12.220 is really this aftershock meaning.
NOTE Confidence: 0.886050958181818
00:12:12.220 --> 00:12:13.690 We're going to be dealing with
NOTE Confidence: 0.886050958181818
00:12:13.690 --> 00:12:15.439 it in the next two to three,
NOTE Confidence: 0.886050958181818
00:12:15.440 --> 00:12:16.740 next one to two decades.
NOTE Confidence: 0.886050958181818
00:12:16.740 --> 00:12:19.668 In terms of that in terms of impact.
NOTE Confidence: 0.86030653
00:12:22.280 --> 00:12:24.206 And then I I would be remiss in saying
NOTE Confidence: 0.86030653
00:12:24.206 --> 00:12:26.531 that I think one of the critical elements
NOTE Confidence: 0.86030653
00:12:26.531 --> 00:12:28.209 for alcohol associated liver diseases.
NOTE Confidence: 0.86030653
00:12:28.210 --> 00:12:30.530 We don't have a drugs to to treat
NOTE Confidence: 0.86030653
00:12:30.530 --> 00:12:32.969 it as a chronic liver disease.
NOTE Confidence: 0.86030653
00:12:32.970 --> 00:12:37.024 So as I always like to to compare it to to
NOTE Confidence: 0.86030653
00:12:37.024 --> 00:12:40.848 Nash or NAFLD where there are near as I said,
NOTE Confidence: 0.86030653
00:12:40.848 --> 00:12:42.840 over 100 compounds that are different
NOTE Confidence: 0.86030653

00:12:42.904 --> 00:12:45.460 phases of development for individuals who

NOTE Confidence: 0.86030653

00:12:45.460 --> 00:12:47.978 have chronic liver disease due to Nash.

NOTE Confidence: 0.86030653

00:12:47.980 --> 00:12:49.840 But I went to clinicaltrials.gov

NOTE Confidence: 0.86030653

00:12:49.840 --> 00:12:50.956 earlier this week.

NOTE Confidence: 0.86030653

00:12:50.960 --> 00:12:53.008 And looked up the drugs that are available

NOTE Confidence: 0.86030653

00:12:53.008 --> 00:12:54.608 for alcohol related liver disease,

NOTE Confidence: 0.86030653

00:12:54.610 --> 00:12:55.786 not alcoholic hepatitis,

NOTE Confidence: 0.86030653

00:12:55.786 --> 00:12:57.746 which actually has actually a

NOTE Confidence: 0.86030653

00:12:57.746 --> 00:13:00.362 sort of a recent surge in terms

NOTE Confidence: 0.86030653

00:13:00.362 --> 00:13:01.770 of new drug opportunities.

NOTE Confidence: 0.86030653

00:13:01.770 --> 00:13:03.690 But for those that have

NOTE Confidence: 0.86030653

00:13:03.690 --> 00:13:05.610 chronic liver disease from LD,

NOTE Confidence: 0.86030653

00:13:05.610 --> 00:13:07.404 really it's a very short list

NOTE Confidence: 0.86030653

00:13:07.404 --> 00:13:09.649 and most of them are nutritional

NOTE Confidence: 0.86030653

00:13:09.650 --> 00:13:11.395 type interventions and and part

NOTE Confidence: 0.86030653

00:13:11.395 --> 00:13:13.664 of this is because the evidence

NOTE Confidence: 0.86030653

00:13:13.664 --> 00:13:15.929 shows that if they're abstinence,

NOTE Confidence: 0.86030653

00:13:15.930 --> 00:13:17.880 that's really the intervention of choice.

NOTE Confidence: 0.86030653

00:13:17.880 --> 00:13:19.210 And I couldn't agree more.

NOTE Confidence: 0.86030653

00:13:19.210 --> 00:13:21.569 And definitely we all strive to achieve.

NOTE Confidence: 0.86030653

00:13:21.570 --> 00:13:23.250 It's an individual to have

NOTE Confidence: 0.86030653

00:13:23.250 --> 00:13:24.594 alcohol associated liver disease,

NOTE Confidence: 0.86030653

00:13:24.600 --> 00:13:26.960 but I think what in putting that as

NOTE Confidence: 0.86030653

00:13:26.960 --> 00:13:29.581 being the treatment I think it has

NOTE Confidence: 0.86030653

00:13:29.581 --> 00:13:31.546 somewhat diminished efforts to help

NOTE Confidence: 0.86030653

00:13:31.615 --> 00:13:33.940 these individuals in managing their

NOTE Confidence: 0.86030653

00:13:33.940 --> 00:13:36.265 chronic liver disease while they're

NOTE Confidence: 0.86030653

00:13:36.270 --> 00:13:37.494 striving to achieve abstinence.

NOTE Confidence: 0.86030653

00:13:37.494 --> 00:13:39.540 And I think the other thing is,

NOTE Confidence: 0.86030653

00:13:39.540 --> 00:13:41.388 given the burden of disease that

NOTE Confidence: 0.86030653

00:13:41.388 --> 00:13:42.620 hepatologists are dealing with,

NOTE Confidence: 0.86030653

00:13:42.620 --> 00:13:44.540 we have to acknowledge that we're
NOTE Confidence: 0.86030653

00:13:44.540 --> 00:13:46.296 not experts generally in treating
NOTE Confidence: 0.86030653

00:13:46.296 --> 00:13:47.538 alcohol use disorder,
NOTE Confidence: 0.86030653

00:13:47.540 --> 00:13:49.448 and perhaps we either have to
NOTE Confidence: 0.86030653

00:13:49.448 --> 00:13:51.744 partner with those who can do it
NOTE Confidence: 0.86030653

00:13:51.744 --> 00:13:53.349 or become more expert ourselves.
NOTE Confidence: 0.86030653

00:13:53.350 --> 00:13:55.541 And even drugs that help with treating
NOTE Confidence: 0.86030653

00:13:55.541 --> 00:13:57.433 alcohol use disorder have been not
NOTE Confidence: 0.86030653

00:13:57.433 --> 00:13:59.215 well studied in patients who actually
NOTE Confidence: 0.86030653

00:13:59.215 --> 00:14:01.330 have alcohol associated liver disease,
NOTE Confidence: 0.86030653

00:14:01.330 --> 00:14:03.602 especially those with more
NOTE Confidence: 0.86030653

00:14:03.602 --> 00:14:05.306 advanced liver disease.
NOTE Confidence: 0.86030653

00:14:05.310 --> 00:14:06.470 All of these things,
NOTE Confidence: 0.86030653

00:14:06.470 --> 00:14:07.050 I think,
NOTE Confidence: 0.86030653

00:14:07.050 --> 00:14:08.575 limit our ability as hepatologist
NOTE Confidence: 0.86030653

00:14:08.575 --> 00:14:11.428 to be able to help the patient with

NOTE Confidence: 0.86030653

00:14:11.428 --> 00:14:13.108 alcohol associated liver disease,

NOTE Confidence: 0.86030653

00:14:13.110 --> 00:14:15.350 enjoy sort of improvements in

NOTE Confidence: 0.86030653

00:14:15.350 --> 00:14:17.590 Natural History because we don't

NOTE Confidence: 0.86030653

00:14:17.671 --> 00:14:19.766 have drug therapies to offer,

NOTE Confidence: 0.86030653

00:14:19.770 --> 00:14:21.972 and we ourselves are not the

NOTE Confidence: 0.86030653

00:14:21.972 --> 00:14:24.517 experts in terms of helping to

NOTE Confidence: 0.86030653

00:14:24.517 --> 00:14:26.505 manage the underlying cause.

NOTE Confidence: 0.86030653

00:14:26.510 --> 00:14:29.489 And then a Massimo actually

NOTE Confidence: 0.86030653

00:14:29.489 --> 00:14:30.728 highlighted this already,

NOTE Confidence: 0.86030653

00:14:30.730 --> 00:14:32.062 and I just want to say that you know,

NOTE Confidence: 0.86030653

00:14:32.070 --> 00:14:34.750 we've all seen this rise also in alcohol,

NOTE Confidence: 0.86030653

00:14:34.750 --> 00:14:35.508 associated hepatitis,

NOTE Confidence: 0.86030653

00:14:35.508 --> 00:14:37.782 and the use of liver transplantation

NOTE Confidence: 0.86030653

00:14:37.782 --> 00:14:40.220 as a therapy therapy for those that

NOTE Confidence: 0.86030653

00:14:40.220 --> 00:14:42.390 have the severe form of alcohol,

NOTE Confidence: 0.86030653

00:14:42.390 --> 00:14:44.210 associated hepatitis.
NOTE Confidence: 0.86030653

00:14:44.210 --> 00:14:46.996 And again the effective COVID
NOTE Confidence: 0.86030653

00:14:46.996 --> 00:14:48.606 is played a role here.
NOTE Confidence: 0.86030653

00:14:48.610 --> 00:14:50.860 So this is a very nice study
NOTE Confidence: 0.86030653

00:14:50.860 --> 00:14:52.810 just looking at the relative
NOTE Confidence: 0.86030653

00:14:52.810 --> 00:14:54.370 absolute change in individuals
NOTE Confidence: 0.86030653

00:14:54.437 --> 00:14:56.477 with alcohol associated hepatitis.
NOTE Confidence: 0.86030653

00:14:56.480 --> 00:14:58.715 Were either waitlisted for liver
NOTE Confidence: 0.86030653

00:14:58.715 --> 00:15:00.503 transplantation in orange who
NOTE Confidence: 0.86030653

00:15:00.503 --> 00:15:01.715 underwent liver transplantation
NOTE Confidence: 0.86030653

00:15:01.715 --> 00:15:04.172 in black and you can see that
NOTE Confidence: 0.86030653

00:15:04.180 --> 00:15:06.040 since sort of a pandemic started,
NOTE Confidence: 0.86030653

00:15:06.040 --> 00:15:08.980 there's been a exponential rise,
NOTE Confidence: 0.86030653

00:15:08.980 --> 00:15:11.880 particularly in the number of
NOTE Confidence: 0.86030653

00:15:11.880 --> 00:15:13.620 liver transplants performed.
NOTE Confidence: 0.86030653

00:15:13.620 --> 00:15:15.464 412% relative increase reflecting

NOTE Confidence: 0.86030653

00:15:15.464 --> 00:15:17.769 as highlighted before both the

NOTE Confidence: 0.86030653

00:15:17.769 --> 00:15:19.832 effects of more harmful alcohol

NOTE Confidence: 0.86030653

00:15:19.832 --> 00:15:21.368 use during the pandemic,

NOTE Confidence: 0.86030653

00:15:21.370 --> 00:15:22.700 but it's not just that,

NOTE Confidence: 0.86030653

00:15:22.700 --> 00:15:24.800 it's also reflecting the fact

NOTE Confidence: 0.86030653

00:15:24.800 --> 00:15:26.480 that transplant programs have.

NOTE Confidence: 0.86030653

00:15:26.480 --> 00:15:29.054 Have increasingly considered this as an

NOTE Confidence: 0.86030653

00:15:29.054 --> 00:15:30.770 indication for liver transplantation,

NOTE Confidence: 0.850409209583333

00:15:30.770 --> 00:15:32.940 and indeed. You're all very aware that

NOTE Confidence: 0.850409209583333

00:15:32.940 --> 00:15:35.119 that in highly selected patients that

NOTE Confidence: 0.850409209583333

00:15:35.119 --> 00:15:37.501 excellent outcomes can be achieved with

NOTE Confidence: 0.850409209583333

00:15:37.501 --> 00:15:40.068 liver transplantation for this indication,

NOTE Confidence: 0.850409209583333

00:15:40.070 --> 00:15:42.422 but the clinical needs the challenges

NOTE Confidence: 0.850409209583333

00:15:42.422 --> 00:15:45.668 here relate to how we select the patients.

NOTE Confidence: 0.850409209583333

00:15:45.670 --> 00:15:48.624 There's a lack of uniform selection criteria,

NOTE Confidence: 0.850409209583333

00:15:48.630 --> 00:15:51.630 and there's still a lot of liver transplant
NOTE Confidence: 0.850409209583333

00:15:51.630 --> 00:15:54.439 and insurance insurer variability in terms
NOTE Confidence: 0.850409209583333

00:15:54.439 --> 00:15:56.924 of approvals for liver transplantation.
NOTE Confidence: 0.850409209583333

00:15:56.930 --> 00:15:59.520 For this indication, and as a consequence,
NOTE Confidence: 0.850409209583333

00:15:59.520 --> 00:16:01.280 this indication for liver transplantation
NOTE Confidence: 0.850409209583333

00:16:01.280 --> 00:16:04.214 is 1, in which there's great.
NOTE Confidence: 0.850409209583333

00:16:04.214 --> 00:16:05.808 Disparities across the United
NOTE Confidence: 0.850409209583333

00:16:05.808 --> 00:16:06.846 States and this.
NOTE Confidence: 0.850409209583333

00:16:06.850 --> 00:16:09.370 There's a high clinical need for us
NOTE Confidence: 0.850409209583333

00:16:09.370 --> 00:16:12.079 to eliminate the disparity in terms of
NOTE Confidence: 0.850409209583333

00:16:12.079 --> 00:16:16.050 access for those appropriate patients.
NOTE Confidence: 0.850409209583333

00:16:16.050 --> 00:16:17.010 So to summarize,
NOTE Confidence: 0.850409209583333

00:16:17.010 --> 00:16:19.250 the key unmet clinical needs in LD,
NOTE Confidence: 0.850409209583333

00:16:19.250 --> 00:16:22.148 I would say biomarkers for early detection
NOTE Confidence: 0.850409209583333

00:16:22.148 --> 00:16:24.967 of LD among those with alcohol use
NOTE Confidence: 0.850409209583333

00:16:24.967 --> 00:16:28.450 disorder is an area that I think warrants.

NOTE Confidence: 0.850409209583333
00:16:28.450 --> 00:16:30.058 Great attention so that we can
NOTE Confidence: 0.850409209583333
00:16:30.058 --> 00:16:32.179 pick them up at an earlier stage.
NOTE Confidence: 0.850409209583333
00:16:32.180 --> 00:16:33.915 Hot effective therapies for the
NOTE Confidence: 0.850409209583333
00:16:33.915 --> 00:16:36.140 disease itself to be done concurrent
NOTE Confidence: 0.850409209583333
00:16:36.140 --> 00:16:37.876 with alcohol use, disorder,
NOTE Confidence: 0.850409209583333
00:16:37.876 --> 00:16:40.156 treatment and achievement of abstinence.
NOTE Confidence: 0.850409209583333
00:16:40.160 --> 00:16:42.518 We need validated and uniformly applied
NOTE Confidence: 0.850409209583333
00:16:42.518 --> 00:16:45.250 selection criteria for ADHD in the liver
NOTE Confidence: 0.850409209583333
00:16:45.250 --> 00:16:47.512 transplant setting and one final point.
NOTE Confidence: 0.850409209583333
00:16:47.512 --> 00:16:51.370 I want to point out is that we're seeing
NOTE Confidence: 0.850409209583333
00:16:51.370 --> 00:16:53.615 that alcohol use is also prevalent
NOTE Confidence: 0.850409209583333
00:16:53.615 --> 00:16:56.281 among those that also have risk factors
NOTE Confidence: 0.850409209583333
00:16:56.281 --> 00:16:58.386 for metabolic fatty liver disease.
NOTE Confidence: 0.850409209583333
00:16:58.390 --> 00:16:59.346 And in the past,
NOTE Confidence: 0.850409209583333
00:16:59.346 --> 00:17:00.780 we've sort of separated them out
NOTE Confidence: 0.850409209583333

00:17:00.832 --> 00:17:02.200 as being mutually exclusive.
NOTE Confidence: 0.850409209583333

00:17:02.200 --> 00:17:03.789 We we know that that's not true,
NOTE Confidence: 0.850409209583333

00:17:03.790 --> 00:17:05.897 and here's just one study that I
NOTE Confidence: 0.850409209583333

00:17:05.897 --> 00:17:08.259 want to highlight where you have to
NOTE Confidence: 0.850409209583333

00:17:08.259 --> 00:17:10.004 acknowledge that this dual diagnosis
NOTE Confidence: 0.850409209583333

00:17:10.004 --> 00:17:11.833 has its own Natural History and
NOTE Confidence: 0.850409209583333

00:17:11.833 --> 00:17:13.744 we need to be aware of it,
NOTE Confidence: 0.850409209583333

00:17:13.744 --> 00:17:15.226 and it probably needs a different
NOTE Confidence: 0.850409209583333

00:17:15.226 --> 00:17:17.069 form of therapeutic intervention.
NOTE Confidence: 0.850409209583333

00:17:17.070 --> 00:17:19.170 Or or perhaps more aggressive intervention,
NOTE Confidence: 0.850409209583333

00:17:19.170 --> 00:17:20.878 the patient who has a single diagnosis.
NOTE Confidence: 0.850409209583333

00:17:20.880 --> 00:17:23.120 And here's a study in which they took
NOTE Confidence: 0.850409209583333

00:17:23.120 --> 00:17:25.107 individuals who had an underlying genetete.
NOTE Confidence: 0.850409209583333

00:17:25.110 --> 00:17:26.730 They took individuals who
NOTE Confidence: 0.850409209583333

00:17:26.730 --> 00:17:27.945 chronically used alcohol.
NOTE Confidence: 0.850409209583333

00:17:27.950 --> 00:17:29.942 They looked at risk.

NOTE Confidence: 0.850409209583333
00:17:29.942 --> 00:17:31.810 Else for fatty liver disease,
NOTE Confidence: 0.850409209583333
00:17:31.810 --> 00:17:34.214 P and PL3 and others and then also
NOTE Confidence: 0.850409209583333
00:17:34.214 --> 00:17:36.678 look at whether they had diabetes as a
NOTE Confidence: 0.850409209583333
00:17:36.678 --> 00:17:39.160 metabolic risk and then looked at what was
NOTE Confidence: 0.850409209583333
00:17:39.160 --> 00:17:42.150 the likelihood that those individuals.
NOTE Confidence: 0.850409209583333
00:17:42.150 --> 00:17:43.970 Would be at risk for liver related
NOTE Confidence: 0.850409209583333
00:17:43.970 --> 00:17:45.543 complications and you could see in
NOTE Confidence: 0.850409209583333
00:17:45.543 --> 00:17:47.265 chronic alcohol users that have the risk
NOTE Confidence: 0.850409209583333
00:17:47.320 --> 00:17:49.364 alleles it was increased at least threefold,
NOTE Confidence: 0.850409209583333
00:17:49.370 --> 00:17:51.354 but if you add it in diabetes on
NOTE Confidence: 0.850409209583333
00:17:51.354 --> 00:17:54.096 top of that then the risk for that
NOTE Confidence: 0.850409209583333
00:17:54.096 --> 00:17:55.548 complication went up tenfold.
NOTE Confidence: 0.850409209583333
00:17:55.550 --> 00:17:57.638 So clearly dual diagnosis are not
NOTE Confidence: 0.850409209583333
00:17:57.638 --> 00:18:00.106 rare and more attention to this dual
NOTE Confidence: 0.850409209583333
00:18:00.106 --> 00:18:02.122 diagnosis in terms of understanding it
NOTE Confidence: 0.850409209583333

00:18:02.122 --> 00:18:04.963 and it is important to meet a clinical need,
NOTE Confidence: 0.850409209583333

00:18:04.970 --> 00:18:06.554 which is that we see these
NOTE Confidence: 0.850409209583333

00:18:06.554 --> 00:18:07.346 patients very often.
NOTE Confidence: 0.662576125555555

00:18:10.110 --> 00:18:13.953 So I I not going to ignore viral hepatitis,
NOTE Confidence: 0.662576125555555

00:18:13.960 --> 00:18:16.235 but it really is the success story
NOTE Confidence: 0.662576125555555

00:18:16.235 --> 00:18:18.164 here and somebody who's been very
NOTE Confidence: 0.662576125555555

00:18:18.164 --> 00:18:20.390 invested in this for most of my
NOTE Confidence: 0.662576125555555

00:18:20.461 --> 00:18:22.687 career I I just sometimes love to
NOTE Confidence: 0.662576125555555

00:18:22.687 --> 00:18:25.268 just focus on how much we've achieved
NOTE Confidence: 0.662576125555555

00:18:25.270 --> 00:18:28.161 with both hepatitis B and hepatitis C
NOTE Confidence: 0.662576125555555

00:18:28.161 --> 00:18:30.311 are antiviral therapies have allowed
NOTE Confidence: 0.662576125555555

00:18:30.311 --> 00:18:32.831 us to achieve really very impressive
NOTE Confidence: 0.662576125555555

00:18:32.831 --> 00:18:35.335 results over the last two decades
NOTE Confidence: 0.662576125555555

00:18:35.335 --> 00:18:37.330 where we have impacted survival,
NOTE Confidence: 0.662576125555555

00:18:37.330 --> 00:18:39.370 reduced the rates of cirrhosis.
NOTE Confidence: 0.662576125555555

00:18:39.370 --> 00:18:40.639 And liver cancer.

NOTE Confidence: 0.662576125555555
00:18:40.639 --> 00:18:43.177 I'm really and preventing many patients
NOTE Confidence: 0.662576125555555
00:18:43.177 --> 00:18:46.056 from the need for liver transplantation.
NOTE Confidence: 0.662576125555555
00:18:46.060 --> 00:18:48.460 And indeed, we have all the tools in
NOTE Confidence: 0.662576125555555
00:18:48.460 --> 00:18:50.883 our toolbox to eliminate these viruses
NOTE Confidence: 0.662576125555555
00:18:50.883 --> 00:18:53.073 globally on the identification side,
NOTE Confidence: 0.662576125555555
00:18:53.080 --> 00:18:54.868 as we have very broad indications
NOTE Confidence: 0.662576125555555
00:18:54.868 --> 00:18:55.464 for testing,
NOTE Confidence: 0.662576125555555
00:18:55.470 --> 00:18:59.016 we have simple and accurate tests to do so.
NOTE Confidence: 0.662576125555555
00:18:59.020 --> 00:19:00.292 On the prevention side,
NOTE Confidence: 0.662576125555555
00:19:00.292 --> 00:19:02.380 we have a vaccine for hepatitis B.
NOTE Confidence: 0.662576125555555
00:19:02.380 --> 00:19:04.048 You could argue that there's a
NOTE Confidence: 0.662576125555555
00:19:04.048 --> 00:19:06.000 clinical need for a hep C vaccine,
NOTE Confidence: 0.662576125555555
00:19:06.000 --> 00:19:08.367 but at least we have a lot of prevention
NOTE Confidence: 0.662576125555555
00:19:08.367 --> 00:19:09.878 activities around viral hepatitis.
NOTE Confidence: 0.662576125555555
00:19:09.880 --> 00:19:12.380 And of course therapeutics are
NOTE Confidence: 0.662576125555555

00:19:12.380 --> 00:19:14.888 safe and highly effective, but.
NOTE Confidence: 0.6625761255555555

00:19:14.888 --> 00:19:18.826 You know this is still an example of where
NOTE Confidence: 0.6625761255555555

00:19:18.826 --> 00:19:20.920 having all the tools doesn't necessarily
NOTE Confidence: 0.6625761255555555

00:19:20.978 --> 00:19:23.129 mean you get to where you want to go,
NOTE Confidence: 0.6625761255555555

00:19:23.130 --> 00:19:26.126 and it highlights the importance of the
NOTE Confidence: 0.6625761255555555

00:19:26.126 --> 00:19:27.929 implementation sciences in allowing us
NOTE Confidence: 0.6625761255555555

00:19:27.929 --> 00:19:30.120 to take what we learned from clinical
NOTE Confidence: 0.6625761255555555

00:19:30.182 --> 00:19:32.227 research and from clinical trials,
NOTE Confidence: 0.6625761255555555

00:19:32.230 --> 00:19:34.024 and then really enacting it to
NOTE Confidence: 0.6625761255555555

00:19:34.024 --> 00:19:35.608 make big differences in terms
NOTE Confidence: 0.6625761255555555

00:19:35.608 --> 00:19:37.268 of patients and public health.
NOTE Confidence: 0.6625761255555555

00:19:37.270 --> 00:19:40.438 And this is a very recent estimation of
NOTE Confidence: 0.6625761255555555

00:19:40.438 --> 00:19:43.266 how we're doing with hep C elimination,
NOTE Confidence: 0.6625761255555555

00:19:43.270 --> 00:19:45.628 and it shows on the left.
NOTE Confidence: 0.6625761255555555

00:19:45.630 --> 00:19:48.374 Is what we've achieved up and up
NOTE Confidence: 0.6625761255555555

00:19:48.374 --> 00:19:50.918 in in 2015 and then on the right

NOTE Confidence: 0.662576125555555
00:19:50.918 --> 00:19:53.104 is the snapshot of where are we in
NOTE Confidence: 0.662576125555555
00:19:53.104 --> 00:19:54.964 in 2020 and what you can see is.
NOTE Confidence: 0.662576125555555
00:19:54.970 --> 00:19:57.124 While the overall number of prevalent
NOTE Confidence: 0.662576125555555
00:19:57.124 --> 00:20:00.384 cases has gone down from 64 to 60 million,
NOTE Confidence: 0.662576125555555
00:20:00.384 --> 00:20:02.640 there's still huge gaps in terms
NOTE Confidence: 0.662576125555555
00:20:02.725 --> 00:20:04.981 of many patients not yet being
NOTE Confidence: 0.662576125555555
00:20:04.981 --> 00:20:07.599 diagnosed in a very modest proportion
NOTE Confidence: 0.662576125555555
00:20:07.599 --> 00:20:09.659 that have been treated.
NOTE Confidence: 0.662576125555555
00:20:09.660 --> 00:20:12.306 So I would say there's a clinical need here,
NOTE Confidence: 0.662576125555555
00:20:12.310 --> 00:20:14.795 and the clinical need is not only
NOTE Confidence: 0.662576125555555
00:20:14.800 --> 00:20:16.600 globally but very very specifically.
NOTE Confidence: 0.662576125555555
00:20:16.600 --> 00:20:17.736 Of the United States,
NOTE Confidence: 0.662576125555555
00:20:17.736 --> 00:20:19.783 where what we need are models of
NOTE Confidence: 0.662576125555555
00:20:19.783 --> 00:20:21.736 care that allow us to both diagnose
NOTE Confidence: 0.662576125555555
00:20:21.736 --> 00:20:23.405 and deliver this highly effective
NOTE Confidence: 0.662576125555555

00:20:23.405 --> 00:20:25.160 therapy and the same cascade
NOTE Confidence: 0.662576125555555

00:20:25.160 --> 00:20:26.725 issue exists for hepatitis B.
NOTE Confidence: 0.662576125555555

00:20:26.725 --> 00:20:28.435 We know how to diagnose this.
NOTE Confidence: 0.662576125555555

00:20:28.440 --> 00:20:29.830 We have highly effective therapies,
NOTE Confidence: 0.662576125555555

00:20:29.830 --> 00:20:31.398 but still we are not always getting
NOTE Confidence: 0.662576125555555

00:20:31.398 --> 00:20:33.219 it to the patients that need it.
NOTE Confidence: 0.857158996333333

00:20:35.660 --> 00:20:37.522 And I think the the most interesting
NOTE Confidence: 0.857158996333333

00:20:37.522 --> 00:20:39.506 and and and put a pressing clinical
NOTE Confidence: 0.857158996333333

00:20:39.506 --> 00:20:41.804 need from from the point of view of
NOTE Confidence: 0.857158996333333

00:20:41.804 --> 00:20:43.430 where I think science still needs
NOTE Confidence: 0.857158996333333

00:20:43.430 --> 00:20:45.380 to come and help us out there.
NOTE Confidence: 0.857158996333333

00:20:45.380 --> 00:20:47.170 It's not just around implementation
NOTE Confidence: 0.857158996333333

00:20:47.170 --> 00:20:49.581 but really more work needs to be
NOTE Confidence: 0.857158996333333

00:20:49.581 --> 00:20:51.243 done is an understanding how to
NOTE Confidence: 0.857158996333333

00:20:51.243 --> 00:20:53.538 reduce the already low risk of cancer
NOTE Confidence: 0.857158996333333

00:20:53.538 --> 00:20:55.213 to even lower among individuals

NOTE Confidence: 0.857158996333333
00:20:55.220 --> 00:20:57.836 in whom they are virally treated.
NOTE Confidence: 0.857158996333333
00:20:57.840 --> 00:20:59.784 So for the patient who's has
NOTE Confidence: 0.857158996333333
00:20:59.784 --> 00:21:01.704 hepatitis C and achieved SVR but
NOTE Confidence: 0.857158996333333
00:21:01.704 --> 00:21:03.671 the patient who has hepatitis B and
NOTE Confidence: 0.857158996333333
00:21:03.671 --> 00:21:05.848 is fully suppressed on antiviral.
NOTE Confidence: 0.857158996333333
00:21:05.850 --> 00:21:06.177 Therapy.
NOTE Confidence: 0.857158996333333
00:21:06.177 --> 00:21:08.466 We know that in those scenarios the
NOTE Confidence: 0.857158996333333
00:21:08.466 --> 00:21:11.129 risk for liver cancer and generally has
NOTE Confidence: 0.857158996333333
00:21:11.129 --> 00:21:13.586 reduced about 70% with antiviral therapy.
NOTE Confidence: 0.857158996333333
00:21:13.586 --> 00:21:16.100 And yet there still remains enough
NOTE Confidence: 0.857158996333333
00:21:16.173 --> 00:21:18.609 risk that we have to continue
NOTE Confidence: 0.857158996333333
00:21:18.609 --> 00:21:20.910 surveillance in these patients lifelong.
NOTE Confidence: 0.857158996333333
00:21:20.910 --> 00:21:21.798 And So what?
NOTE Confidence: 0.857158996333333
00:21:21.798 --> 00:21:23.574 I think the clinical needs are,
NOTE Confidence: 0.857158996333333
00:21:23.580 --> 00:21:26.020 can we take these patients and get that
NOTE Confidence: 0.857158996333333

00:21:26.020 --> 00:21:28.570 risk even lower such that we could
NOTE Confidence: 0.857158996333333

00:21:28.570 --> 00:21:30.284 stop surveillance and along the way,
NOTE Confidence: 0.857158996333333

00:21:30.284 --> 00:21:32.488 can we come up with a better risk
NOTE Confidence: 0.857158996333333

00:21:32.488 --> 00:21:34.582 stratification so that we don't have
NOTE Confidence: 0.857158996333333

00:21:34.582 --> 00:21:36.789 to survey everyone that we have a?
NOTE Confidence: 0.857158996333333

00:21:36.790 --> 00:21:38.584 A group that maybe low enough
NOTE Confidence: 0.857158996333333

00:21:38.584 --> 00:21:40.667 already that we don't have to do so,
NOTE Confidence: 0.857158996333333

00:21:40.670 --> 00:21:42.315 but I think this is where I'm
NOTE Confidence: 0.857158996333333

00:21:42.315 --> 00:21:43.020 I'm excited about.
NOTE Confidence: 0.857158996333333

00:21:43.020 --> 00:21:43.606 The possibility,
NOTE Confidence: 0.857158996333333

00:21:43.606 --> 00:21:44.192 for example,
NOTE Confidence: 0.857158996333333

00:21:44.192 --> 00:21:46.549 to take a patient who's been cured of
NOTE Confidence: 0.857158996333333

00:21:46.549 --> 00:21:48.439 hepatitis C but who may have cirrhosis.
NOTE Confidence: 0.857158996333333

00:21:48.440 --> 00:21:50.636 Can we do antifibrotic therapies that
NOTE Confidence: 0.857158996333333

00:21:50.636 --> 00:21:53.224 might allow us to reverse the fibrosis
NOTE Confidence: 0.857158996333333

00:21:53.224 --> 00:21:56.030 so that we do eliminate race for HCC?

NOTE Confidence: 0.857158996333333
00:21:56.030 --> 00:21:59.117 Or can we change the Intrapac mill use such
NOTE Confidence: 0.857158996333333
00:21:59.117 --> 00:22:02.115 that it's a less prone to carcinogenesis?
NOTE Confidence: 0.857158996333333
00:22:02.120 --> 00:22:03.457 And in the case of hepatitis B,
NOTE Confidence: 0.857158996333333
00:22:03.460 --> 00:22:05.294 of course the Holy Grail is to
NOTE Confidence: 0.857158996333333
00:22:05.294 --> 00:22:07.000 really not only suppress virus,
NOTE Confidence: 0.857158996333333
00:22:07.000 --> 00:22:10.059 but to eliminate it by eliminating both
NOTE Confidence: 0.857158996333333
00:22:10.059 --> 00:22:13.517 CCC DNA and integrated forms of DNA.
NOTE Confidence: 0.857158996333333
00:22:13.520 --> 00:22:15.680 But I think this is a high clinical need.
NOTE Confidence: 0.857158996333333
00:22:15.680 --> 00:22:17.962 This would substantially take us sort of
NOTE Confidence: 0.857158996333333
00:22:17.962 --> 00:22:20.188 to the finish line with these individuals
NOTE Confidence: 0.857158996333333
00:22:20.188 --> 00:22:22.689 who have had hep C or have happy,
NOTE Confidence: 0.857158996333333
00:22:22.690 --> 00:22:24.688 but we want to get them to the point
NOTE Confidence: 0.857158996333333
00:22:24.688 --> 00:22:26.708 where HCC is no longer a risk for them.
NOTE Confidence: 0.79221904375
00:22:28.800 --> 00:22:31.560 And while I'm on the subject of HCC,
NOTE Confidence: 0.79221904375
00:22:31.560 --> 00:22:35.186 I think the other clinical challenge is
NOTE Confidence: 0.79221904375

00:22:35.186 --> 00:22:38.768 is HCC surveillance in patients with Nash.

NOTE Confidence: 0.79221904375

00:22:38.770 --> 00:22:41.642 And as you know,

NOTE Confidence: 0.79221904375

00:22:41.642 --> 00:22:45.232 there's increasing evidence that Nash.

NOTE Confidence: 0.79221904375

00:22:45.240 --> 00:22:47.616 Is one of the conditions in which we can

NOTE Confidence: 0.79221904375

00:22:47.616 --> 00:22:49.860 see HCC in the absence of cirrhosis.

NOTE Confidence: 0.79221904375

00:22:49.860 --> 00:22:51.940 Traditionally that's been reserved really

NOTE Confidence: 0.79221904375

00:22:51.940 --> 00:22:54.699 for our thinking about hepatitis B patients,

NOTE Confidence: 0.79221904375

00:22:54.700 --> 00:22:56.270 but we now understand that

NOTE Confidence: 0.79221904375

00:22:56.270 --> 00:22:57.840 that's also true for Nash.

NOTE Confidence: 0.79221904375

00:22:57.840 --> 00:23:00.458 There was a recent meta analysis that

NOTE Confidence: 0.79221904375

00:23:00.458 --> 00:23:03.172 suggested that the prevalence of HCC and

NOTE Confidence: 0.79221904375

00:23:03.172 --> 00:23:06.016 non cirrhotic Nash was 38% compared to

NOTE Confidence: 0.79221904375

00:23:06.016 --> 00:23:08.857 other etiologies where it was only 14%.

NOTE Confidence: 0.79221904375

00:23:08.857 --> 00:23:11.233 And even when we look at population based

NOTE Confidence: 0.79221904375

00:23:11.233 --> 00:23:13.188 cohorts which is shown in the bottom,

NOTE Confidence: 0.79221904375

00:23:13.190 --> 00:23:14.966 this is looking at a Swedish cohort and.

NOTE Confidence: 0.79221904375
00:23:14.970 --> 00:23:16.450 That they looked at individual,
NOTE Confidence: 0.79221904375
00:23:16.450 --> 00:23:18.670 histologically defined navile and
NOTE Confidence: 0.79221904375
00:23:18.670 --> 00:23:20.890 then followed them prospectively.
NOTE Confidence: 0.79221904375
00:23:20.890 --> 00:23:23.030 Patients that had fibrotic Nash
NOTE Confidence: 0.79221904375
00:23:23.030 --> 00:23:24.742 but was noncirrhotic still.
NOTE Confidence: 0.79221904375
00:23:24.750 --> 00:23:27.702 Had you know a 2 1/2 fold higher
NOTE Confidence: 0.79221904375
00:23:27.702 --> 00:23:30.366 risk of getting HCC so all of this
NOTE Confidence: 0.79221904375
00:23:30.366 --> 00:23:32.604 is to say is that I don't think it's
NOTE Confidence: 0.79221904375
00:23:32.604 --> 00:23:34.830 a sporadic finding that this is real
NOTE Confidence: 0.79221904375
00:23:34.890 --> 00:23:37.284 and I think we clinicians are chronic
NOTE Confidence: 0.79221904375
00:23:37.284 --> 00:23:39.330 grappling with what do we do about this?
NOTE Confidence: 0.79221904375
00:23:39.330 --> 00:23:41.855 There's no specific guidance yet
NOTE Confidence: 0.79221904375
00:23:41.855 --> 00:23:43.370 around doing surveillance,
NOTE Confidence: 0.79221904375
00:23:43.370 --> 00:23:45.295 but we recognize that this is sort
NOTE Confidence: 0.79221904375
00:23:45.295 --> 00:23:46.640 of the coming tsunami.
NOTE Confidence: 0.79221904375

00:23:46.640 --> 00:23:49.392 In terms of potential cases of ATC and

NOTE Confidence: 0.79221904375

00:23:49.392 --> 00:23:52.659 so a high clinical need is in terms

NOTE Confidence: 0.79221904375

00:23:52.659 --> 00:23:56.054 of identifying how we would best do

NOTE Confidence: 0.79221904375

00:23:56.054 --> 00:23:58.250 surveillance among these patients.

NOTE Confidence: 0.79221904375

00:23:58.250 --> 00:23:59.242 And then of course,

NOTE Confidence: 0.79221904375

00:23:59.242 --> 00:24:01.455 I can't leave the the topic of surveillance

NOTE Confidence: 0.79221904375

00:24:01.455 --> 00:24:03.793 without kind of circling back and saying,

NOTE Confidence: 0.79221904375

00:24:03.800 --> 00:24:04.565 you know, again,

NOTE Confidence: 0.79221904375

00:24:04.565 --> 00:24:06.350 you can have the tools you should.

NOTE Confidence: 0.79221904375

00:24:06.350 --> 00:24:07.400 You can know who to screen,

NOTE Confidence: 0.79221904375

00:24:07.400 --> 00:24:08.804 but yet you're implementation

NOTE Confidence: 0.79221904375

00:24:08.804 --> 00:24:10.208 can let you down,

NOTE Confidence: 0.79221904375

00:24:10.210 --> 00:24:11.695 and there's still so much

NOTE Confidence: 0.79221904375

00:24:11.695 --> 00:24:14.246 work to be done in terms of

NOTE Confidence: 0.79221904375

00:24:14.246 --> 00:24:16.230 implementation of HCC surveillance.

NOTE Confidence: 0.79221904375

00:24:16.230 --> 00:24:17.910 And this is just one of many studies

NOTE Confidence: 0.79221904375

00:24:17.910 --> 00:24:19.485 that have highlighted that simple things

NOTE Confidence: 0.79221904375

00:24:19.485 --> 00:24:21.410 can make a difference in this case.

NOTE Confidence: 0.79221904375

00:24:21.410 --> 00:24:24.058 What they did was they just used a

NOTE Confidence: 0.79221904375

00:24:24.058 --> 00:24:26.390 simple mail reminder as an outreach

NOTE Confidence: 0.79221904375

00:24:26.390 --> 00:24:28.090 mechanism to try to improve.

NOTE Confidence: 0.79221904375

00:24:28.090 --> 00:24:29.938 For surveillance and you can see in

NOTE Confidence: 0.79221904375

00:24:29.938 --> 00:24:32.008 the table that compared to usual care,

NOTE Confidence: 0.79221904375

00:24:32.010 --> 00:24:34.789 they were able to increase the proportion

NOTE Confidence: 0.79221904375

00:24:34.789 --> 00:24:37.310 of patients that were getting their

NOTE Confidence: 0.79221904375

00:24:37.310 --> 00:24:40.236 semiannual surveillance from 30 up to 40%.

NOTE Confidence: 0.79221904375

00:24:40.240 --> 00:24:42.580 But clearly 40% of individuals getting

NOTE Confidence: 0.79221904375

00:24:42.580 --> 00:24:44.458 their annual surveillance is still

NOTE Confidence: 0.79221904375

00:24:44.458 --> 00:24:46.474 far short of where we want to be,

NOTE Confidence: 0.79221904375

00:24:46.480 --> 00:24:48.741 and I think we're very challenged in

NOTE Confidence: 0.79221904375

00:24:48.741 --> 00:24:51.399 the realm of HCC of having surveillance

NOTE Confidence: 0.79221904375

00:24:51.399 --> 00:24:53.557 that that depends upon implementation

NOTE Confidence: 0.79221904375

00:24:53.557 --> 00:24:56.779 of radiology on a regular basis.

NOTE Confidence: 0.79221904375

00:24:56.780 --> 00:24:59.060 So novel strategies to help us.

NOTE Confidence: 0.79221904375

00:24:59.060 --> 00:25:00.936 These surveillance again further

NOTE Confidence: 0.79221904375

00:25:00.936 --> 00:25:03.281 risk stratifications that we could

NOTE Confidence: 0.79221904375

00:25:03.281 --> 00:25:05.227 maybe think about it in in a more

NOTE Confidence: 0.79221904375

00:25:05.227 --> 00:25:07.065 select group of patients to be more

NOTE Confidence: 0.79221904375

00:25:07.065 --> 00:25:08.510 intense than others is important.

NOTE Confidence: 0.79221904375

00:25:08.510 --> 00:25:10.290 Clinical areas of need.

NOTE Confidence: 0.79221904375

00:25:10.290 --> 00:25:12.960 So just to summarize the strategies

NOTE Confidence: 0.79221904375

00:25:13.036 --> 00:25:15.446 to improve adherence are needed.

NOTE Confidence: 0.79221904375

00:25:15.450 --> 00:25:16.915 The risk stratification might be

NOTE Confidence: 0.79221904375

00:25:16.915 --> 00:25:18.738 particularly useful as we have more

NOTE Confidence: 0.79221904375

00:25:18.738 --> 00:25:20.604 and more individuals that might need

NOTE Confidence: 0.79221904375

00:25:20.604 --> 00:25:21.870 surveillance and thinking about.

NOTE Confidence: 0.79221904375

00:25:21.870 --> 00:25:24.327 How do we use resource in resource

NOTE Confidence: 0.79221904375

00:25:24.327 --> 00:25:25.029 constrained areas?

NOTE Confidence: 0.79221904375

00:25:25.030 --> 00:25:26.806 How do we apply our surveillance

NOTE Confidence: 0.79221904375

00:25:26.806 --> 00:25:27.990 to those most at

NOTE Confidence: 0.90649577625

00:25:28.054 --> 00:25:29.986 risk and most likely to benefit?

NOTE Confidence: 0.90649577625

00:25:29.990 --> 00:25:31.330 And then I think,

NOTE Confidence: 0.90649577625

00:25:31.330 --> 00:25:33.005 very excitingly is the opportunity

NOTE Confidence: 0.90649577625

00:25:33.005 --> 00:25:34.958 for novel biomarkers that may bail

NOTE Confidence: 0.90649577625

00:25:34.958 --> 00:25:37.743 allow us to move away from imaging as

NOTE Confidence: 0.90649577625

00:25:37.743 --> 00:25:39.688 a required element for surveillance,

NOTE Confidence: 0.90649577625

00:25:39.690 --> 00:25:42.060 and perhaps just be a simple

NOTE Confidence: 0.90649577625

00:25:42.060 --> 00:25:44.643 blood test that could be more

NOTE Confidence: 0.90649577625

00:25:44.643 --> 00:25:47.397 easily repeated and where we would

NOTE Confidence: 0.90649577625

00:25:47.397 --> 00:25:49.184 anticipate that surveillance in

NOTE Confidence: 0.90649577625

00:25:49.184 --> 00:25:52.344 terms of HCC would be easier to to

NOTE Confidence: 0.90649577625

00:25:52.350 --> 00:25:54.810 implement on a population basis.

NOTE Confidence: 0.826925555

00:25:57.270 --> 00:25:58.971 And then I just want to close
NOTE Confidence: 0.826925555

00:25:58.971 --> 00:25:59.700 with liver transplantation.
NOTE Confidence: 0.826925555

00:25:59.700 --> 00:26:02.772 I'm first and foremost a transplant
NOTE Confidence: 0.826925555

00:26:02.772 --> 00:26:06.110 hepatologist so you know to be part of
NOTE Confidence: 0.826925555

00:26:06.110 --> 00:26:09.352 a A to be part of a discipline that has
NOTE Confidence: 0.826925555

00:26:09.352 --> 00:26:10.740 transplantation available for those
NOTE Confidence: 0.826925555

00:26:10.740 --> 00:26:12.535 individuals in whom are therapeutic
NOTE Confidence: 0.826925555

00:26:12.535 --> 00:26:14.247 interventions have failed and now
NOTE Confidence: 0.826925555

00:26:14.247 --> 00:26:15.687 we have someone with complications
NOTE Confidence: 0.826925555

00:26:15.687 --> 00:26:17.656 that warrant a new liver is just
NOTE Confidence: 0.826925555

00:26:17.656 --> 00:26:20.049 great to be operating in a time where
NOTE Confidence: 0.826925555

00:26:20.049 --> 00:26:22.101 that is an available therapy and
NOTE Confidence: 0.826925555

00:26:22.101 --> 00:26:24.299 it's highly successful with you know
NOTE Confidence: 0.826925555

00:26:24.299 --> 00:26:26.465 one to five years survival rates.
NOTE Confidence: 0.826925555

00:26:26.470 --> 00:26:27.565 Which are excellent,
NOTE Confidence: 0.826925555

00:26:27.565 --> 00:26:30.120 but everybody here knows that the demand

NOTE Confidence: 0.826925555

00:26:30.184 --> 00:26:32.339 persistently is greater than supply.

NOTE Confidence: 0.826925555

00:26:32.340 --> 00:26:33.640 And when we look over,

NOTE Confidence: 0.826925555

00:26:33.640 --> 00:26:36.703 you know the last one you know

NOTE Confidence: 0.826925555

00:26:36.703 --> 00:26:38.147 10 to 20 years,

NOTE Confidence: 0.826925555

00:26:38.150 --> 00:26:41.558 while there's been a sort of steady increase

NOTE Confidence: 0.826925555

00:26:41.560 --> 00:26:43.606 in the number of transplants performed,

NOTE Confidence: 0.826925555

00:26:43.610 --> 00:26:45.185 there's been an equally steady

NOTE Confidence: 0.826925555

00:26:45.185 --> 00:26:47.120 rise in those that need them,

NOTE Confidence: 0.826925555

00:26:47.120 --> 00:26:49.381 and really over the last 20 years

NOTE Confidence: 0.826925555

00:26:49.381 --> 00:26:51.698 the number has been pretty static,

NOTE Confidence: 0.826925555

00:26:51.700 --> 00:26:54.040 that about 60% of waitlisted patients

NOTE Confidence: 0.826925555

00:26:54.040 --> 00:26:56.220 receive a liver transplant annually,

NOTE Confidence: 0.826925555

00:26:56.220 --> 00:26:56.594 and.

NOTE Confidence: 0.826925555

00:26:56.594 --> 00:26:59.586 The sad side side of this is that

NOTE Confidence: 0.826925555

00:26:59.586 --> 00:27:01.738 about 20% of them die annually

NOTE Confidence: 0.826925555

00:27:01.738 --> 00:27:03.880 because they get too sick to
NOTE Confidence: 0.826925555

00:27:03.960 --> 00:27:06.150 be offered a liver transplant.
NOTE Confidence: 0.826925555

00:27:06.150 --> 00:27:07.180 So I heard some very,
NOTE Confidence: 0.826925555

00:27:07.180 --> 00:27:09.112 you know you heard from prior speakers
NOTE Confidence: 0.826925555

00:27:09.112 --> 00:27:11.048 about really the exciting arenas here.
NOTE Confidence: 0.826925555

00:27:11.050 --> 00:27:12.508 No doubt this is high clinical.
NOTE Confidence: 0.826925555

00:27:12.510 --> 00:27:15.037 Need we need more organs and there
NOTE Confidence: 0.826925555

00:27:15.037 --> 00:27:17.137 are potentially many novel ways that
NOTE Confidence: 0.826925555

00:27:17.137 --> 00:27:19.382 are out there that are being looked
NOTE Confidence: 0.826925555

00:27:19.382 --> 00:27:22.669 at to to do so from bridge therapies
NOTE Confidence: 0.826925555

00:27:22.670 --> 00:27:26.042 to enhance ways of doing living
NOTE Confidence: 0.826925555

00:27:26.042 --> 00:27:28.810 donation met making better use of
NOTE Confidence: 0.826925555

00:27:28.810 --> 00:27:31.428 of the the organs of poor quality.
NOTE Confidence: 0.826925555

00:27:31.430 --> 00:27:32.785 Those that are stereotactic and
NOTE Confidence: 0.826925555

00:27:32.785 --> 00:27:34.544 then of course the very exciting
NOTE Confidence: 0.826925555

00:27:34.544 --> 00:27:36.080 areas of xenotransplantation.

NOTE Confidence: 0.826925555

00:27:36.080 --> 00:27:38.460 And and organoid transplantation.

NOTE Confidence: 0.920864355555556

00:27:41.140 --> 00:27:43.996 So I'm going to just close by saying

NOTE Confidence: 0.920864355555556

00:27:43.996 --> 00:27:46.230 that I've leaned pretty heavily here

NOTE Confidence: 0.920864355555556

00:27:46.230 --> 00:27:48.994 on on 2 diagnosis alcohol and and

NOTE Confidence: 0.920864355555556

00:27:48.994 --> 00:27:51.054 medic metabolic fatty liver disease,

NOTE Confidence: 0.920864355555556

00:27:51.060 --> 00:27:52.914 because these are going to be

NOTE Confidence: 0.920864355555556

00:27:52.914 --> 00:27:54.543 the diseases that dominate our

NOTE Confidence: 0.920864355555556

00:27:54.543 --> 00:27:56.529 landscape both in the outpatient and

NOTE Confidence: 0.920864355555556

00:27:56.529 --> 00:27:58.579 increasingly on the inpatient service.

NOTE Confidence: 0.920864355555556

00:27:58.580 --> 00:28:00.932 And I would highlight that both of

NOTE Confidence: 0.920864355555556

00:28:00.932 --> 00:28:02.799 them are currently diseases that

NOTE Confidence: 0.920864355555556

00:28:02.799 --> 00:28:05.175 don't have a liver specific therapy,

NOTE Confidence: 0.920864355555556

00:28:05.180 --> 00:28:06.328 and certainly for Nash,

NOTE Confidence: 0.920864355555556

00:28:06.328 --> 00:28:07.763 a very exciting and dynamic

NOTE Confidence: 0.920864355555556

00:28:07.763 --> 00:28:09.180 area for drug development.

NOTE Confidence: 0.920864355555556

00:28:09.180 --> 00:28:10.850 I would say that we would love to see that.
NOTE Confidence: 0.920864355555556

00:28:10.850 --> 00:28:14.144 Same thing happened for managing chronic
NOTE Confidence: 0.920864355555556

00:28:14.144 --> 00:28:16.340 alcohol associated liver disease.
NOTE Confidence: 0.920864355555556

00:28:16.340 --> 00:28:17.780 The other thing that's important
NOTE Confidence: 0.920864355555556

00:28:17.780 --> 00:28:19.777 about these two diseases is that we
NOTE Confidence: 0.920864355555556

00:28:19.777 --> 00:28:21.277 can't do it alone as hepatologist
NOTE Confidence: 0.920864355555556

00:28:21.277 --> 00:28:23.156 that these are both diseases in
NOTE Confidence: 0.920864355555556

00:28:23.156 --> 00:28:24.152 which multidisciplinary approaches
NOTE Confidence: 0.920864355555556

00:28:24.152 --> 00:28:26.677 are needed to optimize our outcomes,
NOTE Confidence: 0.920864355555556

00:28:26.677 --> 00:28:30.240 and so striving to provide a clinical
NOTE Confidence: 0.920864355555556

00:28:30.331 --> 00:28:32.502 care environment that can do so,
NOTE Confidence: 0.920864355555556

00:28:32.502 --> 00:28:35.990 I think, will yield important dividends.
NOTE Confidence: 0.920864355555556

00:28:35.990 --> 00:28:37.740 I've highlighted throughout my talk
NOTE Confidence: 0.920864355555556

00:28:37.740 --> 00:28:39.806 the importance of risk profiling or
NOTE Confidence: 0.920864355555556

00:28:39.806 --> 00:28:41.640 risk stratification as a way both to
NOTE Confidence: 0.920864355555556

00:28:41.640 --> 00:28:43.866 improve the way that we manage our patients.

NOTE Confidence: 0.920864355555556
00:28:43.870 --> 00:28:44.176 Clinically,
NOTE Confidence: 0.920864355555556
00:28:44.176 --> 00:28:46.318 it's going to be important for drug
NOTE Confidence: 0.920864355555556
00:28:46.318 --> 00:28:47.767 development and ultimately we all
NOTE Confidence: 0.920864355555556
00:28:47.767 --> 00:28:49.601 know that this will be the mechanism
NOTE Confidence: 0.920864355555556
00:28:49.654 --> 00:28:51.438 by which we're going to pave the way
NOTE Confidence: 0.920864355555556
00:28:51.438 --> 00:28:55.200 towards a more personalized form of medicine.
NOTE Confidence: 0.920864355555556
00:28:55.200 --> 00:28:56.716 I've also highlighted this,
NOTE Confidence: 0.920864355555556
00:28:56.716 --> 00:28:58.990 I think interesting concept of whether
NOTE Confidence: 0.920864355555556
00:28:59.057 --> 00:29:00.667 the Natural History of cirrhosis
NOTE Confidence: 0.920864355555556
00:29:00.667 --> 00:29:03.072 may need to be adjusted for Nash,
NOTE Confidence: 0.920864355555556
00:29:03.072 --> 00:29:06.240 since it's it's a sort of a unique
NOTE Confidence: 0.920864355555556
00:29:06.240 --> 00:29:10.230 disease and having both this more
NOTE Confidence: 0.920864355555556
00:29:10.230 --> 00:29:12.890 widespread metabolic complication profile.
NOTE Confidence: 0.920864355555556
00:29:12.890 --> 00:29:13.724 HCC clearly important.
NOTE Confidence: 0.920864355555556
00:29:13.724 --> 00:29:15.670 I could have really spent the entire
NOTE Confidence: 0.920864355555556

00:29:15.725 --> 00:29:17.185 talk talking about the clinical
NOTE Confidence: 0.920864355555556

00:29:17.185 --> 00:29:18.960 challenges around HCC but some exciting
NOTE Confidence: 0.920864355555556

00:29:18.960 --> 00:29:20.773 developments but we still have a lot
NOTE Confidence: 0.920864355555556

00:29:20.773 --> 00:29:23.568 more work to do in terms of first
NOTE Confidence: 0.920864355555556

00:29:23.568 --> 00:29:25.505 and foremost the surveillance viral
NOTE Confidence: 0.920864355555556

00:29:25.505 --> 00:29:28.480 hepatitis it it is the success story,
NOTE Confidence: 0.920864355555556

00:29:28.480 --> 00:29:30.825 but elimination is still quite a long
NOTE Confidence: 0.920864355555556

00:29:30.825 --> 00:29:33.707 way off so I'd say down but not out
NOTE Confidence: 0.920864355555556

00:29:33.707 --> 00:29:36.115 and then across my talk this morning
NOTE Confidence: 0.920864355555556

00:29:36.115 --> 00:29:38.754 I've I've highlighted that we can do
NOTE Confidence: 0.920864355555556

00:29:38.760 --> 00:29:41.518 great things in terms of our research,
NOTE Confidence: 0.920864355555556

00:29:41.520 --> 00:29:42.200 but ultimately.
NOTE Confidence: 0.920864355555556

00:29:42.200 --> 00:29:44.920 To to get the benefits we need good
NOTE Confidence: 0.920864355555556

00:29:44.992 --> 00:29:47.356 implementation science and I would say
NOTE Confidence: 0.920864355555556

00:29:47.356 --> 00:29:50.000 that that's true now more than ever.
NOTE Confidence: 0.920864355555556

00:29:50.000 --> 00:29:51.330 And with that I'd like to thank

NOTE Confidence: 0.920864355555556
00:29:51.330 --> 00:29:52.380 you for your attention.
NOTE Confidence: 0.920864355555556
00:29:52.380 --> 00:29:53.304 And again,
NOTE Confidence: 0.920864355555556
00:29:53.304 --> 00:29:56.076 congratulations Yale on your Jubilee and
NOTE Confidence: 0.920864355555556
00:29:56.076 --> 00:29:59.058 been really delighted to be part of it.
NOTE Confidence: 0.920864355555556
00:29:59.060 --> 00:30:00.180 Thanks very much Doctor.
NOTE Confidence: 0.920864355555556
00:30:00.180 --> 00:30:00.460 Thoreau,
NOTE Confidence: 0.920864355555556
00:30:00.460 --> 00:30:02.196 so a lot more to do still,
NOTE Confidence: 0.920864355555556
00:30:02.200 --> 00:30:05.027 but the future looks very bright so
NOTE Confidence: 0.920864355555556
00:30:05.027 --> 00:30:09.403 with that I would like to remind the
NOTE Confidence: 0.920864355555556
00:30:09.403 --> 00:30:12.680 audience that would join us again at 1:15.
NOTE Confidence: 0.920864355555556
00:30:12.680 --> 00:30:14.656 We now have a lunch break and you
NOTE Confidence: 0.920864355555556
00:30:14.656 --> 00:30:16.652 can join us by using the yield
NOTE Confidence: 0.920864355555556
00:30:16.652 --> 00:30:18.450 liver and world round table link.
NOTE Confidence: 0.920864355555556
00:30:18.450 --> 00:30:21.474 Which is on the all sessions page.
NOTE Confidence: 0.920864355555556
00:30:21.480 --> 00:30:22.960 And if you have time,
NOTE Confidence: 0.920864355555556

00:30:22.960 --> 00:30:25.018 please take a few minutes to watch

NOTE Confidence: 0.920864355555556

00:30:25.018 --> 00:30:26.210 your prerecorded videos under

NOTE Confidence: 0.920864355555556

00:30:26.210 --> 00:30:27.480 the thank You Video tab.

NOTE Confidence: 0.920864355555556

00:30:27.480 --> 00:30:31.107 And with that, we'll see you at at 1:15.

NOTE Confidence: 0.920864355555556

00:30:31.110 --> 00:30:31.920 Thanks very much.