[MUSIC PLAYING]

**SPEAKER:** Millie, if you want to come on up. So maybe while we're waiting, Carly, could you tell us, has there been improvements in CMH or access to CMH type services with the recent changes with the expansion of Medicaid in Michigan? And what's your perception?

**CARLY FRITSCH:** Yeah, I would say certainly. With Medicaid expansion, we've certainly seen that folks have more access to either plans through the marketplace, through Medicaid HMOs. And I've certainly seen folks be able to access both medical and mental health care more reasonably. And the funding level at CMH is, I think, that's something that varies year to year. But certainly whenever folks have insurance, that improves their access to care.

**AUDIENCE:** Dr. Fontana, can I ask a question?

**SPEAKER:** Sure. Oh, sorry. I was looking around. I couldn't recognize--

**AUDIENCE:** I had a question about-- so there has been some increased enthusiasm for transplantation for alcoholic hepatitis. And in the context of addiction disorders, one of the things that came across in a recent presentation was the patient's insight. And you've highlighted that a lot in your talk and whether in those with severe alcoholic hepatitis, if they didn't bring themself into the hospital-- again, highlighting insight.

And so I guess my question is focusing on insight because it was a topic that you focused a lot on. Are there predictors of-- is it a natural process to develop insight? Or is it something that people develop, and then is that part of relapse? In other words, they develop insight and then they lose it? Or is it something that just comes with age or--

**CARLY FRITSCH:** Yeah, I think the literature shows us that insight improves the treatment. It's very difficult to assess a patient's level of insight. And when we've had folks who've come in with acute alcoholic hepatitis, when you can't speak to that patient or if the patient is experiencing any degree of confusion, even more so on top of that. I will say that I feel encouraged when I anecdotally talk with patients. I do think that they develop insight with treatment, particularly if they have a good counselor. But that's a real challenge.

**SPEAKER:** David, how do you navigate that with alcoholic liver disease, acute presentations-- and so on-- with sick patients?

**DAVID GOLDBERG:** So our center is, sort of, morphing. We don't have a fixed policy about acute alcoholic hepatitis. We clearly don't necessarily follow a six-month rule because I think it's somewhat of an arbitrary number. We've definitely transplanted people with alcoholic liver disease whose sobriety is not six months, but they've been in AA or been in IOP.

The acute alcoholic hepatitis is still a matter of debate. I think the challenge is when it's-- especially when it's a younger person-- we like to think, well, should we give them a chance? But then there's at least some data that's coming out that maybe those have the highest risk of relapse afterwards. So our center has done two of these patients on a case-by-case basis. But we struggle with that. And I think it's a challenge because we all want to have a policy. But then you have a young person come in and--

**SPEAKER:** Right. It's very challenging. And one of the things I've noticed is-- in looking at the published literature from Hopkins, and I think Mount Sinai, and a couple other places-- that there are clearly relapses that can be clinically significant. Not the slip of a drink or two, but getting recurrent damage early on in the transplant. And when you look at it, it's sometimes counterintuitive in the sense that it's frequently a younger patient.

And so I don't know, Carly, if you want to-- what about the psychology that-- are younger people feeling that perhaps-- because they're younger, and their friends are younger, and make it through other traumatic events-- that perhaps, in a way, there's some component of invincibility? You know, I got a transplant, and I feel great now. Therefore, nothing will happen this time because I'm drinking less or-- what is your sense there? Because I've noticed that, repeatedly, that it's the younger patients that perhaps are at greater risk for relapse.

**CARLY FRITSCH:** Yeah, sure, I see that as well. And particularly if we have folks who don't have the experience of feeling sick prior, we see that almost across organs and transplant in terms of adherence after the fact. I think whenever somebody is drinking at a level that's causing them to have medical complications at a young age, they're probably drinking quite a substantial amount. It's probably a part of their daily routine.

It may not be the only substance that's used. There probably is some component of invincibility there. They may not have the same sort of structure in terms of, let's say, a spouse or a job that keeps them in a healthier routine-- in terms of just thinking about patients that we've seen. But I agree. We see that quite a bit. And when there is a slip that it is seems to be higher volume, longer duration. I think that's been my experience.

**SPEAKER:** So David-- just to switch gears here-- someone mentioned, you showed the maps of the-- let me finish this one, and we'll get to that one. You showed the maps of the differences in MELD score at the time of allocation. So what about people moving? You have Blue Cross, and it's a national policy. So why not go and move to where the MELD score is lower to get your transplant?

**DAVID GOLDBERG:** So that does happen-- not as much as the media makes it out to be. In theory, that's a nice option. But it's obviously a challenge to uproot your family, your loved ones. Some centers will make you live there for 6 weeks or 12 weeks after transplant--

**SPEAKER:** --to get to know you.

**DAVID GOLDBERG:** --get to know you. Some advertise that they will list you without seeing you, transplant you, and then send you back in two weeks to your local center. So it becomes difficult. I think the other thing that's challenging with those maps is that it just aggregates the geographic areas and doesn't break things down by center. So you sometimes may benefit as much by going from the East Side to the West Side of New York than you might from the East Side to the Southeast of the United States. So that's the challenge with those sort of lumping things into geographic units, as well.

**SPEAKER:** But there's nothing that would prevent someone from doing that if they had the insurance and the wherewithal.

**DAVID GOLDBERG:** Right. Now there are some insurers that will only contract with certain centers of excellence. Obviously, if you have state Medicaid, that can't cross state lines. But that can happen at times.

**SPEAKER:** Sorry, a question here?

**AUDIENCE:** Hi. I'd like to go back to the issue of alcoholism. As you just explained, it is very difficult to treat these people with higher rates of relapse. And, along with alcohol, these people also have drug abuse. So the question that I looked at-- over a period of time-- is what is the underlying factor?

I think what a lot of us are missing-- in this issue of alcoholism and drug use-- is the underlying factor is these patients have ADD and ADHD. And one of the things I look at is the hospital H and-- history and physical. The prevalence of ADD and ADHD is 10% of the population. That means 10% of the people in this room have ADD/ADHD. So the question is--

**SPEAKER:** Or they already left.

[LAUGHTER]

**AUDIENCE:** And if you look in the hospital-- the history of physicals on the medical service-- if there are a hundred patients, it's only mentioned in two people. It's not in 10% of the patients of the hospital or an entire hospital to [INAUDIBLE] on the H&P says is ADD/ADHD. Even the people in this room who do H&Ps, they don't pull an H&P. It's not recorded.

I go to the psychiatric floor of consultation and where half the people are drug addicts-- drug addicts, alcoholics-- and their H&P does not identify ADD and ADHD. The reason I bring this up is the underlying factor for alcoholism and drug abuse is ADD or ADHD. And I have patients who are being treated for depression-anxiety by psychiatrists, but they have never been diagnosed for ADD and ADHD-- and not treated for it.

So what I'd like to urge everyone here in this room is identify ADD/ADHD. And then if you treat them, you will be able to control alcoholism or reduce it. And I think that's the underlying factor for alcoholism and drug abuse.

**SPEAKER:** So I think you bring up a good point of trying to unravel the layers of someone with bad liver disease and encephalopathy and then trying to get a reliable, medical psychiatric history-- in particular, touching on a treatable, underlying psychiatric condition. Carly, do you want to just comment on that? Do you ever see that in a liver transplant candidate?

**CARLY FRITSCH:** Certainly. I think when we assess mental health, we're really looking at are there mental health symptoms that would impact an ability-- an individual's ability-- to adhere to a transplant regimen. Is the anxiety so significant that they're not going to be able to return for their clinic appointments or develop a working relationship with their nurses and their medical team?

Beyond that, we're lucky to have a new resource in the transplant center. We have a psychiatrist on board who can help us flush out when things are becoming more complex and difficult or if there's ongoing, self-medication of psychiatric disorders through some sort of substance use. But I think at the preliminary level, we're looking are there symptoms that are going to impact the individual's ability to adhere.

**DAVID GOLDBERG:** I think the one point though is we use the term alcoholic liver disease. And it's a misnomer. And I think that does somewhat of a disservice to patients. Because there are patients who meet criteria, but a woman can drink two drinks a night, five nights a week, splits a bottle of wine with her husband, works and everything.

My mom would drink-- split a bottle of wine with my dad. She wasn't an alcohol, didn't meet any criteria. That can do enough damage to your liver to cause cirrhosis. People may have-- carriers for hemochromatosis, and all. So I think we also have to be careful, though, in stigmatizing anyone with liver disease with a history of alcohol as an alcoholic without getting their full history.

**MILLIE SAMANIEGO:** I have a question in regards to a coma patient that is a young guy who got transplanted with a kidney-liver for alcoholic liver disease. And he's having quite a little bit of trouble sleeping. And he's very concerned because he's now planning to go back to school. And he's having quite a little bit of interference.

Well, I sent him to Scott Winder. And he was started on trazodone-- doesn't work. Seroquel doesn't work. What do I do with this guy? I very happily will put him on Ambien CR. But I don't think it's a good policy to start these patients with high risk in medications that can be addictive.

**SPEAKER:** Yeah, benzos. So, Carly, is it benzos overlap with alcohol or--

**CARLY FRITSCH:** Certainly. And I think probably Dr. Winder is going to have better advice about what to do in that situation. But it's a real challenge. And certainly transplant is not a treatment for a substance use disorder. It's still going to be there after the fact.

**SPEAKER:** So, Millie, one other question that came up here is-- so you've mentioned how prevalent preexisting CKD is or development of CKD post-transplant. So what medications or medical therapy-- as a nephrologist-- should we be considering? Do statins make a difference? Do ACE inhibitors? What should we be targeting to try to help-- or what we're doing in the post-transplant.

**MILLIE SAMANIEGO:** That's a great question. Any diabetic should be on an ACE inhibitor or an angiotensin II receptor blocker. They're cheap medications. They are generic. They are easily available. And that is correct. In any patient that had a liver transplant, diabetes, ARBs and ACE inhibitors should be used because it has a protective effect on diabetic kidney disease.

Now, the issue is what if they don't have diabetes? Let's say that they have hypertension. What is the best drug to treat hypertension in a non-diabetic patient? Anything you like. You can follow the JNC 8 rules.

Diuretics usually do not-- that work very well in the general population-- don't do well in patients with kidney disease, especially if they have a GFR less than 30. But you can get them started on a calcium channel blocker-- whatever medication you want-- provided that their blood pressure is 140 over 90 or less, which are the current guidelines.

Statins-- I like statins. In your case, you will have to determine if-- I don't believe that liver toxicity is a major problem in our patients. There may be a little bit of an elevation of [INAUDIBLE] but rarely causes too much trouble.

Statins are actually a very beneficial medication. That's because the statins have more beneficial effects than just decreasing cholesterol. And cardiovascular disease is a very common cause of death in all transplant patients. It may have some beneficial effect in certain malignancies. So if well-tolerated and no evidence of muscle problems, statin will be perfectly fine for your patients as well.

If the patient has [INAUDIBLE] then, again, it's either you can put the patient on Cardizem or again the best would be an ACE inhibitor and angiotensin II receptor blocker. And if the patient is diabetic, we have a diabetes clinic on Tuesdays at the ACU. We have a transplant specialist, and a team of the nutritionists and a pharmacist. Send them over because diabetic control is going to be essential.

**SPEAKER:** Yeah, certainly the transplant population is at an accelerated risk for atherosclerotic conditions. And I think we can sometimes get lost in focusing on our organ and forgetting about these other sorts of things. So we try to do the best we can, but always important to remind us of what's evidence-based that can really make a difference.

There's one other question here for Millie. So you mentioned hepatorenal syndrome is not an indication-- the type 1- is not an indication to do a combined transplant. Well, where do you draw the line? So they have hepatorenal. You started them on dialysis, but their MELD's 22. So is there a time? Did you do a kidney biopsy there? Is that helpful? How do you sort all that out?

**MILLIE SAMANIEGO:** Well, I don't think that this has been fairly well-studied, at all. The classical teaching and what some of the recommendations are, if you have not become dialysis-independent by 12 weeks, you will not. And that's the same rules that we apply for any patient transplant candidate, with or without liver disease, that has acute kidney injury.

Biopsies can be done. In the majority of the biopsies you will find some kind of pathology. The problem with that is that histology doesn't always predict the natural history of kidney disease in a patient. Risk of bleeding has to be taken into consideration. A lot of these patients bleed quite a bit.

But I think it should be very much like adding sort of a composite endpoint-- so to speak. If the patient is older than 50 years old-- or even older than 60-- that is a patient that is going to have a raise for kidney disease if they are hypertensive and they are diabetic. Patients with hepatitis C have quite significant on diagnose kidney disease.

**SPEAKER:** So you look at a combination not--

**MILLIE SAMANIEGO:** It's a combination--

**SPEAKER:** --duration of type 1.

**MILLIE SAMANIEGO:** --of composite endpoints.

David, do you have a comment on that?

**DAVID GOLDBERG:** The one thing-- and if you know, or a coordinator here knows, the exact rules-- but come July there are going to be specific criteria for someone to be considered for liver-kidney. So right now it can be on a center-by-center basis, but they're formalizing them. And I don't know if it's like a GFR less than 35 for six weeks or something?

**MILLIE SAMANIEGO:** Yes, 30 [INAUDIBLE] about six weeks.

**DAVID GOLDBERG:** And dialysis for a couple.

**MILLIE SAMANIEGO:** I think six to-- I think it's going to be even shorter than what it is right now. Right now it's 12. I think maybe that's six to nine?

**DAVID GOLDBERG:** Yeah, if anyone knows-- but it's going to be formalized criteria. So it's sort of uniformity. But there's also going to be this stopgap that a center can say, we don't think this person's kidneys are that bad even though they meet the criteria. We're just going to a liver. But if they then don't recover, they will then give priority to get a kidney after a liver transplant.

So it's to hopefully minimize the unnecessary use but allow that stopgap if we guess wrong. So that will hopefully help to at least-- depending on your [INAUDIBLE] when, hopefully, I might minimize the liver-kidneys and the chance if someone survives the transplant, their kidneys don't recover, then do the kidney. But if someone's really sick-- and then they may not survive at all-- to do two organs in them is obviously a challenge.

**MILLIE SAMANIEGO:** Correct. I think that we-- at least at Michigan-- the majority of our kidney-livers actually make it and make it quite well. One trick I use is the PTH. PTH gets elevated only when you have a reduction in kidney function of 20 mL for a minute or less for a substantial amount of time.

So I had gotten [INAUDIBLE] heart transplants transplanted that way. Because they didn't have any other markers, even with the biopsy. And they didn't have too much of kidney disease in the biopsy. So my question was always to the team, well, what if the PTH is elevated? So when they couldn't answer it, the patient got a heart and a kidney.

**SPEAKER:** And that suggests it's more chronic, right?

**MILLIE SAMANIEGO:** It's a more chronic process. They are-- it's very sensitive for reduction of functional kidney mass. So PTH is one good way to go.