

Zoom in on Dementia & Alzheimer's

The Stages of Alzheimer's – How Does Dementia Really Progress?

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Transcript of Zoom with Marwan Noel Sabbagh MD, FAAN,
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Please note: This transcript has been edited for clarity and brevity.

BROOKS KENNY: Hi, good afternoon and welcome. My name is Brooks Kenny, and I'm delighted to be with all of you today. I am an Alzheimer's advocate and advisor to BrightFocus Foundation. I've been working in the Alzheimer's advocacy space for more than 10 years. And I have my own personal experience in my family caring for my mother-in-law who had the disease. Just a reminder, this is a free monthly program that we are able to offer through funding in part by educational grants from Eli Lilly and Genentech. And for those of you new to BrightFocus, I wanted to share that we are a non-profit organization that's been funding millions of dollars all over the world for the last 50 years in the areas of Alzheimer's disease, macular degeneration, and glaucoma. As a reminder, we have previous episodes that are available to all of you. So we know that all of your questions today were not about the stages of Alzheimer's. We receive many questions on other topics as well. And so we want to be sure that you can go to brightfocus.org/ZoomIn and you can access any of these episodes if your question wasn't answered today. We also want you to

keep your questions coming. We use your questions to actually help influence what we might talk about in a future episode. So I encourage you to check out those episodes and continue to share your questions with us.

So now I will introduce you to our expert today, Dr. Marwan Sabbagh. Dr. Sabbagh is the Moreno Family Chair for Alzheimer's Research, Vice Chairman for Research and Professor at the Department of Neurology at Barrow Neurological Institute. He is a board-certified neurologist and geriatric neurologist who has dedicated his life and career to finding a cure for Alzheimer's disease. He is a leading investigator for many prominent national Alzheimer's treatment trials. He's on the editorial board for the Journal of Alzheimer's Disease. He is editor-in-chief of Neurology and Therapy, and he has authored or co-authored over 430 medical and scientific articles on Alzheimer's research. You did not mishear me--430 articles. He is the author of *The Alzheimer's Answer: Reduce Your Risk and Keep Your Brain Healthy* as well as *The Alzheimer's Prevention Cookbook*. Dr. Sabbagh earned his undergraduate degree from the University of California, Berkeley, his medical degree from University of Arizona. He did his residency at Baylor College of Medicine and completed his fellowship in geriatric neurology from the University of California, San Diego. I hope I got all of that right Dr. Sabbagh. Welcome to the program and thank you for being with us today.

DR. MARWAN SABBAGH: Thank you for including me. It's great to be with you.

BROOKS KENNY: Wonderful. So let's launch into our topic. Today we want to talk about the stages of dementia and Alzheimer's and answer the question: How does it really progress? You know, the stages of Alzheimer's continues to be a very complex issue, and so we want to shed some light on that for all of you. When it comes to a cancer diagnosis, most people are familiar with the stages and what that means, you know. In fact, when I was reading the 100 plus questions that came in from the 600 people that registered for today, I was reminded of my own personal story when my father called me to tell me about his colon cancer diagnosis. I was concerned when he told me this, but yet I was immediately comforted by the fact that he said, "Don't worry, Brooks. It's just stage one." And

everyone in our family generally understood what that meant, because it's a topic that is more well understood. And so I was really intrigued. We got a number of questions asking to compare the staging of cancer compared to the staging of dementia. So, Dr. Sabbagh, if you could kick us off by outlining how you, as a neurologist, break down the stages of Alzheimer's for your own patients. I think that would be a great question to kick us off.

DR. MARWAN SABBAGH: Thank you, Brooks, and thank you for having me. I want to thank BrightFocus for including me today, and I'm honored and thrilled to be here. Just as for this audience you need to understand, I am actually both an Alzheimer's researcher and a practicing geriatric cognitive behavioral neurologist. In fact, today, I'm in middle of clinic and right between patients I got on this podcast. And so these kinds of questions are top of mind, topical and relevant to my daily practice of medicine. And so I want to talk conceptually about a couple of things that people really mix up, which is the concepts of mild cognitive impairment and dementia. Dementia is a categorical definition. Dementia means that your cognitive decline is bad enough to affect your daily life. So, and whereas mild cognitive impairment is cognitive decline not bad enough to affect your daily life. So, if you're having cognitive issues and you're independent, then you have mild cognitive impairment. And if you have cognitive issues and you have gone from being independent to dependent, meaning family members are having to step in and help and assist to manage you, then you have gone into dementia. Saying dementia is like saying cancer. If you say cancer, you say, what kind? If you say dementia, you should say what kind? Because people always say to me, "Oh, thank God, I don't have Alzheimer's. I have dementia." Well dementia is the umbrella. Alzheimer's is the type. So all Alzheimer's is dementia, but not all dementia is Alzheimer's. There are many causes of dementia: Lewy body dementia, frontotemporal dementia, Parkinson's, vascular, etc. So many causes of dementia, but not all of them are Alzheimer's. In fact, Alzheimer's represents two-thirds of all dementia.

But Brooks your specific comment, the stages of dementia, we would say first of all that there is the mild cognitive impairment, which is pre dementia, meaning that they're still independent, but cognitively having

an impairment. And when they move into dementia there's the 3-stage scale which is mild, moderate, severe, or which would be following an instrument called the CDR, Clinical Dementia Rating scale. The other instrument that I like to use is called the FAST, Functional Assessment Staging Scale. A Functional Assessment Staging Scale is going from mild common impairment to mild dementia and then going through the ordinal progression of decline. So what I'm saying is mild dementia may be loss of independent activities of daily living, things like driving and finances, etc. But when they go into the moderate stage, that's when they start to have loss of personal care: bathing, grooming, dressing, toileting. And when they go to the advanced stage, then they're losing language, mobility, swallowing, and it's near the end. So what I'm saying is, that the stages of dementia really kind of fall in terms of severity.

The other thing I want to say before we kind of go into the next question is that there's a huge discussion, Brooks, about redefining Alzheimer's disease from a clinical disease to a biological disease. Are we going to get a chance to talk about that evolution?

BROOKS KENNY: Absolutely.

DR. MARWAN SABBAGH: Okay. So what everybody, and you know I give a lot of talks in Arizona, and everybody who comes to hear me talk is basically trying to find out if they're getting Alzheimer's. That's basically, you know, if I misplace my glasses and keys, am I going to get Alzheimer's? The reason I say this to you is that we have always understood Alzheimer's to be a clinical disease. You're forgetful. You're misplacing things. You're repeating yourself. You're getting lost. You're losing independence. That's the clinical disease. But we're now starting to understand that the changes biologically might start two decades before the onset of forgetfulness. So we're now starting to look at Alzheimer's as a biological disease of amyloid, tau, and other neurodegeneration rather than just simple forgetfulness.

BROOKS KENNY: Yeah, absolutely. You know one question that just is coming up for me, and I'm not sure if for others, how do we reconcile as consumers of healthcare that there are two different scales? You know the mild, moderate, severe, and then the FAST scale that you referenced. How

do we reconcile that when we're thinking about caring for ourselves or loved ones if there's confusion among providers and the nomenclature is not the same?

DR. MARWAN SABBAGH: I agree with that concern. So the fundamental thing, of course, is that Google has become the source of all knowledge. You know they prefer to get the information from Dr. Google than Dr. Sabbagh, you know it is what it is. The reason I say this to you is that, people are familiar with the 3-stage scale: mild, moderate, severe. But people clinically, I find, would agree that the 7-stage scale is a much more precise progression. So if you want to predict the progression of Alzheimer's disease as through the mild cognitive impairment and mild dementia and moderate severe dementia, the 7-stage scale is much more reflective of what's called an ordinal progression. In other words, patients progress in that sequence. So I prefer the 7-stage, and so to this audience this is called the FAST, Functional Assessment Staging Scale, and I find it to be much more precise than the 3-stage scale, and much more informative. So you're right that people ask which one should they use, but that's pretty much what I would say.

BROOKS KENNY: Okay, thank you for that. So let's talk a little bit about timing, and a lot of questions came in from folks and it's probably a lengthy answer, but you know, it makes sense that people want to understand how much time is there within each of, using that FAST scale, of the 7 stages. How long is someone in one stage? Can you go into the next stage and then go back? And what does that kind of look like? And how do you project that out over time?

DR. MARWAN SABBAGH: So that's the day job, those kind of broad questions are the day job of many people in the world. I tell you that because, you know, everybody's journey through dementia in terms of length is different. We know there are a lot of factors that expand that or contract that. We know, for example, some estimates say mild cognitive impairment might last five years. Some people think that each stage of dementia (mild, moderate, severe) might last three years. But these are general giant statistics that are not applied to any individual. We also know that kind of a general rule of thumb is that, if you can look at a lifetime of a

person with dementia, roughly speaking, 10 years is in the dementia state. From onset of their dependent state to end of life tends to be average 10. Might be shorter to 8, might be longer to 12. A lot of factors go into that: age, dependence, but a lot of things are relevant to that timeline. But there's no fixed number.

BROOKS KENNY: And so one verbatim question was, "How long does each stage last, and can someone be in the early stages for many, many years, and what would make it more likely that they would be?"

DR. MARWAN SABBAGH: So we know that even before they ever walked into my clinic they maybe have accumulated changes in their brain for 10 to 20 years. So we know that the pathological accumulation of disease can be up to a decade or two before the onset of symptoms. And so, the onset of symptoms might be the mild cognitive impairment phase. And we know some estimates put that, I've seen ranges about five years on the mild cognitive impairment, and then each stage of very flexible might be three to four years through each stage of the dementia.

BROOKS KENNY: Got it. So, when you're thinking about the benefits of diagnosing early and layering that with the staging question, can you talk a little bit about what people can do, both treatments and in general, and what treatments might be available in these stages? And what are some of the non-therapeutic interventions that might help prolong someone to stay in the earlier stages? And you can go into detail.

DR. MARWAN SABBAGH: Yeah. So that's a lot of tough questions. Let me kind of break them into pieces.

BROOKS KENNY: Perfect. Thank you.

DR. MARWAN SABBAGH: We know in mild, moderate, and severe dementia we would often use the symptomatic drugs. These are the cholinesterase inhibitors like donepezil (Aricept®), rivastigmine (Exelon®), or galantamine (Razadyne®). Now, the fundamental issue that people always say to me is that these drugs don't work, and memantine (Namenda®) doesn't work. And I say to you, these are symptomatic drugs. And what do I mean by that? If you have knee pain and you take Tylenol®, the Tylenol takes away the knee pain, but doesn't take away the arthritis

that caused the knee pain. So, my point is that we use symptomatic drugs to treat symptoms all the time. So, donepezil, rivastigmine, memantine, galantamine improve the symptoms of memory, but do not stop the disease because they don't take away the disease. The Alzheimer amyloid plaques and tangles that cause the disease. So, my point is that the symptomatic drugs have a benefit, have a role, don't stop the disease, but can help improve the quality of life and symptoms.

The whole discussion that everybody's having right now is about the new monoclonal antibodies. This is the lecanemab, donanemab story. What we do know is that these drugs would only be selected in patients who are in the very mildest symptoms, meaning mild cognitive impairment and mild dementia. Not everybody's going to get these drugs. In fact, despite all the hype and controversy around the monoclonal antibodies of lecanemab and donanemab, we estimate less than 20% of anybody will ever get these drugs who have a memory issue. So, this is not going to bankrupt Medicare despite what you read in the newspaper. This is not the drug that bankrupts Medicare. This is a niche drug. It only helps a certain selected population. And doesn't make people better, it makes them less worse. So let me say that again, these drugs don't make you better, they make you less worse. So, the drugs bend the curve, but don't fundamentally make people better. What we're seeing, Brooks, is a lot of misunderstanding of what the drugs do, what they're intended to do, how they're used, what people understand about them. So that's why I wanted to take a moment to clarify that.

BROOKS KENNY: Absolutely.

DR. MARWAN SABBAGH: We want to talk a little bit about lifestyle directive strategies. Do you want to take that next?

BROOKS KENNY: Absolutely. That was the follow up to that question. It was a two-part question. So I think a lot of people want to know what they can do. You know, I think for so long there was this sentiment that there was nothing to do when you were experiencing symptoms. And we're learning a lot that there are things to improve quality of life and make things easier. So, we'd love to hear that from you.

DR. MARWAN SABBAGH: There's a lot of interest and investigation on quality of lifestyle directed interventions. We're specifically talking about under the mantra of brain health. You know this nice big term, brain health, to be all things related. What we do know is that in the prevention strategies and in the earliest symptomatic strategies, meaning mild cognitive impairment, there is some benefit that lifestyle directed strategies, such as physical exercise, do have benefits. They're good for prevention, they're good for mild cognitive impairment. There's a clear benefit of physical exercise actually making cognition better or arresting the progression of cognitive decline. The recently reported EXERT study showed that it arrested the progression after a year of an aggressive exercise regimen. But you know people always ask me about diet and supplements, etc. And the other question that everybody is asking me is, "Can you offset your genetic risk with lifestyle directed intervention?" So, if it runs in my family, can I run my way out, can I jog my way to not get these diseases? And the answer is, we cannot guarantee that lifestyle directed strategies will offset real genetic risk. So we'd love to say that. It's a great narrative. It's a great story. We really want to see that happen. But it's not something we can guarantee that's going to happen.

So, and then of course, there is sufficient data on three things to recommend to improve lifestyle directed things. One is physical exercise. Two is cognitive stimulation, meaning brain games, you know all those things that you read about, crossword puzzles, etc. And three is blood pressure management. It turns out that really getting your blood pressure under control is really good for your brain health. Those three things have sufficient evidence for us doctors to recommend them.

But people ask me, "What about diet? Should I do keto, should I do Mediterranean?" And I say to you, is that the data is all over the map when it comes to diet. So we have no specific recommendation, although a lot of us feel like the Mediterranean diet works a little bit better. If you're going to do keto, let me just give you the audience, because somebody in this audience is hot on keto for sure. If you're going to go coconut oil, I'm okay with that. But either you go coconut oil with full keto, or you don't bother at all. Coconut oil, you cannot have your cookie, you know, have your coconut oil, and then eat your cookies and think that's going to work. Your brain doesn't work like that. Either you go full keto or no keto.

You can't pick and choose how that works. Your body does not work that way. So, what I'm saying to you is that the data is all over the map on diet.

And the last thing that everybody asked me about is supplements. And I say again, there's no standard approach to use of supplements in this regard. So, you know, you can go to Costco and buy the whole row of supplements, and there's no guarantee they're going to help you, but these are the things you need to think about.

BROOKS KENNY: Got it. This is a good segue to ask a follow-up question that we received just now in the chat, but it's also here on my list. What are some of the interventions in that moderate stage? I mean, does physical activity and routine sleep like you know, it's not just dread, right? If someone's going into that moderate stage or nearing that moderate stage, there's still things one can do in their lifestyle to improve, correct? Not improve cognition but maintain their quality of life.

DR. MARWAN SABBAGH: Yes, so critical questions, Brooks. This is something that we have to think about. We think that lifestyle directed interventions, like physical exercise and nutritional changes, really makes sense in the prevention, and even in the mild cognitive impairment. But once you're into full dementia, we're not sure that those strategies work as well in the full dementia stage. But that doesn't mean you shouldn't do anything. I would tell you that a structured lifestyle, structured calendar, you know, routines are very helpful, structured sleep. And getting patients to sleep well is very helpful. Cognitive stimulation like games and things that could be very helpful. So there are things you can do in the moderate stage that are a little different. It's not like you're going to suddenly start, you know, going out and running 6 miles a day. It's not going to happen. But if you can bring a structured routine, structured environment, a calm environment, reduce sensory stimulation, create a structured sleep regimen. These are the things you can do.

BROOKS KENNY: Great. Well, I just want to take a pause and remind everyone that you are welcome to pose your questions in the chat. If you would like to ask a question live. I'm just going to double check here. Oh, wonderful, we have someone right here. Go ahead and ask your question.

BRYNA: Ok, it's real quick. I'm 71, and my question is, at what age should you start worrying about, oh, do I have dementia? What if I'm forgetting things? I don't remember very well what I just read, etc., etc. At what age does someone do some research on me?

DR. MARWAN SABBAGH: Yeah. So Bryna, thank you for your question and I want to say to you that 71 is an age where I would start to pay attention. And so, if you're already noticing, as you just said, changes in your memory and your daily life, I would certainly go and seek care. I will tell you a couple of things about that, I think that are relevant to you, Bryna. Number one is, if you're finding that your primary care is kind of dismissing you or pushing you know, downplaying it, you can't let it go. You got to keep getting checked. Number two is most people are not aware that there are now blood tests that are available. That might be a great screening tool to think about. They are actually blood tests to check for Alzheimer's that just came on the market in the last six to nine months. And number three is in a situation where, as you just described, I might send you for something called neuropsychological tests or memory tests because we know that these kinds of things could detect a lot of changes. So what I'm saying to you is, if you're worried, you're noticing a change, don't wait, don't get worse. Go get care! And these are the things I would recommend.

BRYNA: And when you said about my primary, if they're not paying attention to me, who would I go to pay attention?

DR. MARWAN SABBAGH: I know, because I have to tell you a lot of primary care physicians will say, hey don't worry about it. You're just stressed. You're old. You can't sleep, etc. Do not let them kind of push, you know, you got to push ahead and say, maybe I need an evaluation and tell me about the blood test for Alzheimer's. Tell me about neuro-psych testing. All the things we just talked about.

BRYNA: Okay, great. I thank you for that.

BROOKS KENNY: Thank you so much for that question. I'm going to push Dr. Sabbagh a little bit on this, because I know him, and I have this conversation with my parents often. Put your hat on, if you were

telling someone in your family, here's what you should say to a primary care provider to push them, what is that message? Are they asking for something? I mean, I'm thinking about, you know, breast cancer screening, when women were encouraged back in the eighties to go to their doctor and say, I want a mammogram, and I want to schedule one. You know we were encouraged to do that. What is the way to bridge that gap? Because we know the primary care providers don't have a lot of time.

DR. MARWAN SABBAGH: They don't.

BROOKS KENNY: It's very hard for someone when they're starting to notice some changes. There's a lot of stigma and we don't talk about it as freely as I know we all wish we did. So how do we bridge that gap from a provider's point of view? I just love for you to dig into that a minute more.

DR. MARWAN SABBAGH: This is a gray area, and it's an area Brooks that really is a gap. Why is that? Because primary care physicians don't get the training to do this kind of work. They don't feel comfortable diagnosing. They don't feel comfortable referring. They, you know, in 36 months of training they may get one day in the memory clinic, maybe one day in 36 months of training. Third thing is that they have a regulatory advisory body called the United States Preventative Task Force, which says you should not be doing routine cognitive screening in your annual Medicare wellness visit. Which is total garbage right? They're screening you for breast cancer, colon cancer, osteoporosis, heart disease, high blood pressure, diabetes, but they will not screen your memory. So there are gaps in care. And that's why you're getting pushback from primary care. The way you push forward is, do an online memory test, do an online screening questionnaire, take a copy of the blood test you want to see done, and say, "Doc, I'm having a problem. Here's my online memory test. Here's my online screening questionnaire. Here are the tests that I would like you to order." And then you calling them out so that way you know that they're on notice. If you say to the doctor, "I'm forgetful" and they laugh it off and say, "Yeah, everybody's forgetful your age. You know you're old or something." Don't let them do that.

BROOKS KENNY: Great. I knew you'd give everybody a burst of

confidence on that. So thank you for doing that. We now have so many questions rolling in.

DR. MARWAN SABBAGH: I see it blowing up, look at that! Wow!

BROOKS KENNY: I know. Now I'm going to turn it over to Rona for your question. Just a reminder, no personal medical advice. But, Rona, please ask your question to Dr. Sabbagh, and you'll just need to unmute yourself.

RONA: If I may be before I ask my real question. Doctor, are you located, do I understand in Arizona?

DR. MARWAN SABBAGH: Phoenix, Arizona. Yes, ma'am.

RONA: Too bad, you're too far away from me.

DR. MARWAN SABBAGH: I have people fly in from all over the country, that's ok.

RONA: Yeah, I'm sure, I'm sure you do. My husband has recently been diagnosed with Alzheimer's, and it's at the beginning sort of and I'm one of these people that wants to make everything better. So I've been doing a lot. I'm trying to be proactive and I'm doing a lot of reading, a lot of research, as much as I can do. My question is that online and on Facebook, there are so many things that pop up and I click on a lot of things and get a lot of information. I'm doing a lot of reading. But how does one know what is really legitimate and what isn't legitimate?

DR. MARWAN SABBAGH: Oh my gosh, Mrs. Siegel, finish your thought, but I have so much to say to this.

RONA: Okay, because I'm so confused. And I consider myself, you know, somewhat intelligent, but it is a really difficult journey to figure out what is a sham and what isn't. And then there are lots of things I'm seeing about clinical trials. And again, I don't know what's good and what's bad. And one in particular, I know I'm going on, and I'll stop after this I'm sorry. One in particular is called the HOPE Study that I'm wondering about.

DR. MARWAN SABBAGH: Yes, great one. Fantastic.

RONA: There's a thing you wear like on your ears and your eyes, and it's supposed to stimulate.

DR. MARWAN SABBAGH: I would do that one.

RONA: You would?

DR. MARWAN SABBAGH: Absolutely! So let me give you...so many things to say. First of all, I'm sorry for what's going on with your husband, and second of all, I want to tell you that I joke about Dr. Google, but Dr. Google is not my friend, okay. My point is that nowadays in modern practice of medicine, every time a patient sees me, first thing they do is they go home, and their family members click 19 times, and they select the fact that they want to get. And it's a problem because instead of believing me, the expert, they want to believe what they read on the internet. So you're literally wading in an ocean of data, some of it true and based on science, some of it not true, not based on science. And I understand it's a lot of confusion.

So let me give you general principles. Number one is, well, first, I'm going to say, I'm going to plug my books. I have six books. You can find me on Amazon. That's the first thing I'm going to say. Second thing, I'm going to say, sorry Brooks.

BROOKS KENNY: Oh it's ok, I have several of them.

DR. MARWAN SABBAGH: Yes. Second thing I'm going to say to you is, all the claims on supplements have not been supported by scientific evidence. So we say that supplements are nice to know, but it is not absolutely based on fact, just to let you know. Third thing I'm going to say is that there are consensus bodies of information about things like exercise and diet, etc. I would go look those up. Specifically to your point about the HOPE study, that's a technology called gamma entrainment oscillation. It's a head device you wear with eyes and ears. It's a spinoff of the company that used to be known as Cognito Therapeutics, and I think they just changed their name. It's a spinoff of MIT in Massachusetts. The data and science are fantastic, and it's very, very safe. Very, very safe. So if there's any way for your husband to get involved, I want to tell you that I

would encourage it. I want to be very clear. I have no skin, I don't own that company, I have no skin in that game just to let you know. So I understand that there are a lot of things you're facing as a consumer, that are very hard to understand that you're facing.

RONA: Oh, yeah, yeah. But thank you about the HOPE, because I've really been grappling with that for a while. And so I think I'll go forward and look into it more. I believe they're advertising that it's a free procedure that you, you know you don't have to pay out of pocket.

DR. MARWAN SABBAGH: That's correct. Most trials you do not pay, and the one advantage you know, we always, one of the guiding principles we have when it comes to clinical trials, it doesn't matter which clinical trial you're talking about, whether it's HOPE or another trial. The guiding principle, safety, safety, safety, safety. The FDA mandates it. We as physician scientists want to see that whatever we're doing is under the umbrella of being safe. So HOPE is a very safe technology.

BROOKS KENNY: Thank you so much. I'm going to just remind folks, last month we had a discussion with Dr. Jeffrey Cummings on clinical trials that's available on the brightfocus.org website. So we encourage you to check that out as well. I'm going to invite Harold to unmute himself. I think he was next with a question. And then, Debbie, I'll be coming to you next. Go ahead, Harold.

HAROLD: Thank you very much for taking my question. Dr Sabbagh, you mentioned the difficulty of getting a blood test. You know, and I tried with a very credible neurologist after one of the previous sessions there, and he didn't know anything about it. So there is now a blood protein test that claims to predict Alzheimer's 15 years before onset, or earlier. So I mean, how much credence do you give to that?

DR. MARWAN SABBAGH: So your reflection Mr. Kalishman is reflective of where we fit in the Alzheimer universe. Is that the super experts like myself, and Dr. Cummings, and you know, Brooks, and BrightFocus? We are hearing about everything going on latest, greatest and yet that's not translating into the local neurologists who may not know about this. So what your experience is, is typical for what I'm so saying to you. What

you're talking about is a blood test called the p-tau 217 study test, which just broke in the last three weeks, four weeks and has very, very good predictive value. So there are now multiple blood tests both through LabCorp and Quest and other companies. One is amyloid 42/40 ratio, one is p-tau 181, and one is neurofilament light. These three tests are already approved and available. P-tau 217 should be available in the next few months, I don't have an exact date. My point is that the data on the science of the blood tests are much better than most people are aware of, and they're both could be diagnostic, certainly diagnostic, but could be predictive to your point. And so I will tell you that your reading is more current than your neurologist's information.

HAROLD: Well, it's curious, because this was UCLA.

DR. MARWAN SABBAGH: So I know those guys. Shame on them. They should know better than that. Unfortunately, UCLA has had a significant turnover of all their Alzheimer's neurologists. So this might be a new person in their ranks. They, like I said, have gone through three in the last 10 years, three generations of neurologists. I will also tell you, Mr. Kalishman, I'm a one trick pony. I'm an Alzheimer's guy, and that's all I do. So that's all I can say.

BROOKS KENNY: Thank you so much, and I'm going to turn it over to Debbie for her question.

DEBBIE: Hello, good afternoon. Thank you very much. My question is about Alzheimer's patients, and you know one of the fears that we, or things that we encounter with is, we know that even simple falls or infections, or whatever can really advance the condition, the diagnosis. So could you just go through, and I know you know it probably it varies by person, but what happens to that individual, and how does a simple fall or a simple infection really advance the disease?

DR. MARWAN SABBAGH: This is an absolute truth, and your observations are right on. So I dread my patients going to the hospital because I know they're going to lose a lot of memory in the process. When I see patients who are doing well and all of a sudden they're a bit confused, the first thing I do is I check their urine because UTI's often can exacerbate

cognitive symptoms and increase the confusion. We don't really know why. Why would having a urinary infection make you more confused? But it happens a lot, and it happens enough that the first thing we would routinely do is check your urine. Falls, I don't necessarily, it's not the fall per se. If it's the fall and you break something, and then you go to the hospital, and then you need to be hospitalized, and then you need surgery, and you need anesthesia. That's the sequence. And I know that if my patient, you know, breaks a hip, for example, and goes to the hospital and get surgery, they're losing 20% of their memory. And it's not coming back. It's probably the rapid change of environment, the medications, the anesthesia. And what also happens is that people get very confused. They start getting a little agitated, and they start taking a fist to the nurse, by the way, never take a fist to the nurse. Once you do that, you're going to get a psychiatry consult. It's going to put you on very sedating medication. So that's just a chain of events that leads to the loss.

BROOKS KENNY: And I actually want to tie that back to what we talked about earlier on the staging, because you had talked about in general on average, an individual may go through the stages over 10 years, but certain individuals may progress more quickly. And I just think that that's a really important point to emphasize, is that there are things like an infection or a fall, or change in environment. And it really does, at least for me reinforces the importance of keeping our loved ones and ourselves safe. The importance of having that routine. The importance of having familiar people. Regular doctor visits so that you aren't disrupted. I know we experienced that in my own family when my loved one had a fall and found herself in the hospital for three weeks, and there was rapid decline. And so it's just a good tie back I think, to the conversation around staging and how we can keep our loved ones in the earlier stages as long as possible. Okay, I think we have time for one more, potentially two, so I will invite Robert. If you want to unmute yourself and share your question with Dr. Sabbagh. Just a reminder, no personal medical questions, thank you.

ROBERT: Sure. Can you hear me? Yep, okay. So my question relates to diagnoses for mixed dementia types. And what I'm familiar with is that the life expectancy for different types of dementia vary significantly. So,

for example, if you have a patient who is diagnosed with two different types of dementia, could you please talk about how you think about, is the life expectancy 10, I mean in general. I know you said each patient is individual, but does it tend towards the shorter life expectancy, or an average? Or is it worse than both? How should we think about these things?

DR. MARWAN SABBAGH: Yeah, so this is absolutely true. So it turns out that there are mixed. The two most common mixed would be vascular and Alzheimer's, and then Lewy body and Alzheimer's. So Lewy body dementia is what Robin Williams had. Most people remember Casey Kasem actually died of Lewy body dementia. Ted Turner has Lewy body dementia. There's a lot of people. So Lewy body dementia is the second most common type of dementia after Alzheimer's and yet until recently nobody had really heard of Lewy body dementia. Lewy body dementia tends to have a shorter life expectancy, under six years is the rule. And the reason is that a lot of people with Lewy body dementia have mobility problems, they tend to fall, they have Parkinson related changes, they have trouble swallowing, they have hallucinations, big time hallucinations. And then we medicate those hallucinations, and that causes people to fall. So I'm saying is that you get in a spiral and a lot of mixed dementias tend to have worse outcomes, because not just the, you know, multiple pathologies in the brain, but because we, as doctors feel compelled to treat a hallucination or something, and that can make us other symptoms worse.

ROBERT: Right. So let me ask, maybe a more pointed version of the question. Suppose you have a patient who has Lewy body dementia, and their life expectancy is, as you said, six years, does the fact that they also have Alzheimer's make their life expectancy shorter or longer?

DR. MARWAN SABBAGH: Actually, so that's a scientific question that we're still trying to answer. What we know is that 80% of Lewy body patients actually have Alzheimer's pathology. So the majority of them actually have Alzheimer's pathology. And that's where that number comes from. What you're asking is, if we looked at the life expectancy of somebody who had Alzheimer's pathology and someone who didn't have Alzheimer's pathology is their life expectancy different? And for now, we

just lumped them all together. So that's the number, six. It's five and a half years. That number seems to apply to everybody.

BROOKS KENNY: I think it was Rebecca that had a question, did you want to unmute yourself, Rebecca?

REBECCA: My question is going back to the fact that medical students aren't being trained to deal with dementia or geriatric patients. And I'm wondering, if doctor you see a way to imbue medical education with more focus on palliative care and geriatric medicine, because we're all getting older. I'm in my mid-fifties, and I feel like we're going to need more medical attention. And it's disheartening to know that there are doctors out there who don't have the time to deal with their patients experiencing dementia and I just wonder if you see any hope in the future in medical education?

DR. MARWAN SABBAGH: So I want to thank you for that insightful comment. As I said, I'm a practicing neurologist, and I have medical students in my clinic every day and residents. And yet in 2024, medical students in residents are still taught to this day that you only cannot diagnose Alzheimer's with an autopsy. That's from, by the way, that was created as criteria back 40 years ago, in 1984 is when those criteria were created. And the medical texts have not caught up. What you don't realize is that the advances in the Alzheimer's space, and I saw Dr. Rossi kind of like pinging this in the chat. The medical advances in Alzheimer's are breathtakingly fast nowadays, breathtakingly fast. Very exciting for people like me who've been waiting for years, decades to see these changes. Now they're coming at a very rapid rate. But and yet the medical education system has not caught up, and there seems to be not a lot of motivation to see these wholesale changes come along. And so, you know, every time I have a student in my clinic, they're almost startled when I tell them all this stuff. They're like, well, that's not what I learned in medical school. I'm like, honey or sir, or student, that's not what we learned. I can't say, honey, sorry and student, that's not what we learned. That's not the way it is anymore. So my point is that you're right. The educational programs are not catching up, but I don't see a big mandate to do so. And yet the changes in the field are changing at a very rapid rate.

BROOKS KENNY: Great! Thank you so much for that. We have time for one more question, from Jacki, and if we have time, we'll answer the one that came through our live stream as well. So, Jacki, over to you.

JACKI: Okay, I have some questions about depression medications. A lot of doctors will give us the depression medications to kind of feel that that's what we need over other you know, like blood tests or going to neurologists. And I'm wondering if there's any correlation, because I know that a lot of doctors do give, you know, anti- not antibiotics, excuse me, depression medicine to people with Alzheimer's.

DR. MARWAN SABBAGH: So you know, this is a very good point. Doctors feel comfortable with giving antidepressants a lot. So that's why they do. We know that people in the very mildest symptoms often have anxiety as one of the very first signs. In fact, there's now a new term called MBI, mild behavioral impairment, which is to complement the mild cognitive impairment. So my point is that a lot of doctors feel comfortable giving an antidepressant for things like anxiety, and that's why they do because they don't feel like they can really have a good grasp on the cognitive measures on it. So my point is that that's not unusual to see. But if your cognitive issues, to be very clear on this Mrs. Newfield, if your cognitive issues are not getting better after you treated for mood, you should still press ahead and see what else is going on.

JACKI: Thank you. Very interesting.

BROOKS KENNY: Great. Thank you so much for your question. And there was, I think there was just one more question that someone had Dr. Sabbagh in the live stream which we are doing is, how do you handle interventions for someone with moderate Alzheimer's, so in that stage when they have comorbidities?

DR. MARWAN SABBAGH: Yeah, this is a very, very complicated question insofar as everybody's a little different in that regard. I take care of a lot of people with moderate stage Alzheimer dementia. It is very time-consuming. It is exhausting for the caregivers. Why? Because in the moderate stage, you tend to see a lot more of the emergence of the behavioral symptoms: the wandering, the pacing, the agitation, the

paranoia, the disruptive sleep. So there's the behavioral component in the moderate stage of dementia. There is mobility and safety. I've had patients wander literally wander away. I had a patient last week who was found the next day, 150 miles from where she was going to drive to go to the doctor. She was found in a different city, because she got lost driving home, and she was very impaired. So the moderate stage, you have to deal with the behavior, the mood, the cognitive issues. You have to deal with the safety. And I say safety, mobility, not leaving the stove on, you know, things like that. And so I actually will often recommend a day program for patients in the moderate stage. I'm lucky to be at a large medical center, and we have social workers and case managers and nurses that are specially trained in dementia care. So I'm trying to say, is there's a lot to do in the modern stage, whether they have comorbidities or not.

BROOKS KENNY: Yeah, I am so glad that you were able to share that, and I think it just underscores, and probably is a good ending to the Q&A piece, because you know, the stages of Alzheimer's are not readily known, right? We've discovered that from the questions, from the amount of people that have registered for this session. But as a caregiver, if you know, generally speaking, these are the things you need to look for in the moderate stage, then you can better prepare. Just like any other type of treatment, or disease state. So you know, I'm coming away from this conversation with so much gratitude for you, Dr. Sabbagh, for sharing this information and normalizing the conversation for so many. And on behalf of everyone at BrightFocus, we thank you. And I really want to give a shout out to all the people that tuned in today. I am really just so inspired by everybody's questions and courage really to kind of raise that hand and ask away. I think it's only through sharing our own experiences and our own doubts and questions are we all going to be able to learn so collectively, we can better manage this disease for ourselves and our loved ones. So thank you all for participating.

I want to just show our slides real quick as we start to close here. If your questions were not answered today, or if you have topics that you would like to share with us, please, please send them along to reply@brightfocus.org, and let us know what we can do. We're still building out this program. We've had many hundreds of people signing up each month, and we

certainly want to have all your questions answered. We will be sending a recording and transcript of this episode. We'll also be mindful of the questions we weren't able to answer today. And just as a reminder, BrightFocus.org does have a wealth of resources available online, if we want to move to the next slide, that you all can access. And don't forget you can access the Zoom in on Dementia & Alzheimer's episodes from the website as well. So we certainly encourage you to do that and we hope you continue to tune in. So next month we are going to be focused on risk reduction through non-drug intervention. So stay tuned for more information about that program.

And I don't want to say for sure, because I don't make the big decisions, but I am sure, Dr. Sabbagh, we are going to be inviting you back because this was a highly engaged conversation. It was wonderful to see you again, and on behalf of everyone at BrightFocus Foundation, thank you for your expertise, and thank you for your commitment, your life's work in conquering Alzheimer's disease.

DR. MARWAN SABBAGH: And thank you for including me. I'm grateful to be included.

Useful Resources

BrightFocus Foundation: (800) 437-2423 or visit us at BrightFocus.org. Available resources include—

- **Clinical Dementia Rating (CDR) Scale:**
 1. Mild
 2. Moderate
 3. Severe
- **Functional Assessment Staging Scale (FAST):**
 1. Normal Aging
 2. Possible Mild Cognitive Impairment
 3. Mild Cognitive Impairment
 4. Mild Dementia
 5. Moderate Dementia
 6. Moderately Severe Dementia
 7. Severe Dementia
- [HOPE Study](#)
- [Alzheimer's Blood Tests](#)
- **Dr. Sabbagh's Books on Amazon:**
 1. [The Alzheimer's Prevention Cookbook: 100 Recipes to Boost Brain Health](#)

2. [The Alzheimer's Answer: Reduce Your Risk and Keep Your Brain Healthy](#)
3. [Strong Heart, Sharp Mind: The 6-Step Brain-Body Balance Program that Reverses Heart Disease and Helps Prevent Alzheimer's](#)