Alzheimer's and Other Dementias: Overview for Healthcare Professionals

Presenter: Megan L. Malone, MA, CCC-SLP

- [Amy] All right, hello, and welcome to our course, "Alzheimer's and Other Dementias: An Overview for Healthcare Professionals," and this is presented by Megan Malone, who is a speech-language pathologist working as a clinical faculty member in Kent State University's Department of Speech Pathology and Audiology and as a clinician and consultant in home healthcare. She's the co-author of the book, "Here's How to Treat Dementia," the co-author of the textbook chapter "SLP Services in Home Healthcare," in the "Medical SLP Across the Care Continuum: An Introduction" textbook, and has spoken numerous times at various annual conventions. So I do invite you to read more about her on our website. And with that, Megan, thanks so much for joining us, and I'll turn it over to you.

- [Megan] Thank you so much. Hello, everyone. Welcome. I'm so happy to be here today to share some important information to help all healthcare professionals develop a better understanding of Alzheimer's and dementia. This is a one-hour course, so we're gonna provide an overview of dementia and share some ideas for treatment, understanding behavioral changes, and how to support patients and caregivers. So thank you, again, for joining me. Let's get started. Here are my disclosures, so please take a second to read those. Moving forward to our learning outcomes, this is what we want to accomplish today in this one-hour course. We'd like everyone to be able to explain the characteristics of Alzheimer's disease and related disorders, including symptoms and progression and how they're diagnosed; explain strategies to manage behavioral challenges in individuals with Alzheimer's disease and dementia; and list interventions to promote independence in individuals with Alzheimer's and dementia and provide their communication and participation in, and improve, I'm sorry, their communication and participation in activities of daily living.

For limitations and risks, we'd just like to point out that statistics are subject to change with populations, and we want to remember that anything that's shared in here could fluctuate, given when you're taking this course. The research and results may vary, based on geographical location and populations explored. And treatment recommendations should be based on the individual that is being served and not generalized to any one population. Okay, so let's begin with part one, and this is going to kinda lay our foundation for understanding dementia and Alzheimer's disease. So I'd like to start with a question to consider, just to get us all into kind of a different frame of mind as we take in this information.

So I'd like you all to just think, on a scale of 1 to 10, how would you rate your level of knowledge of Alzheimer's disease or dementia? The hope will be that toward the end of this course, you're gonna feel that number increase a little bit due to your understanding increasing. Let's look at a couple of facts and figures here. So right now, we have more than 6 million Americans who are living with Alzheimer's disease. One in three seniors dies with Alzheimer's disease or another dementia. Alzheimer's disease kills more people than breast cancer and prostate cancer combined, so very striking statistics here to think about the number of people who are living with dementia or Alzheimer's disease right now.

In 2023, Alzheimer's disease and other dementias will cost the nation about $345 billion. Over 11 million Americans provide unpaid care for people with Alzheimer's and other dementias. So again, these are caregivers, loved ones, family members who are doing a lot of the heavy lifting here. Between 2020 and 2030, 1.2 million additional direct care workers will be needed to care for individuals with dementia. So unfortunately, we're still seeing this trend where a lot of people are dealing and living with dementia and, therefore, they're going to need care and support, so that's where we come in as healthcare professionals. So it does give some security in terms of our

professions, but that is not the kind of security we want. We wanna see people being able to thrive and live and not have to deal with these kinds of things.

But until we see changes there, we are going to be needed, and so it's really important for us to have a good understanding of what these patients are going through and what they need and how we can best support them. So let's talk about dementia. I think this can be a little bit of a confusing idea for a lot of people. I spend a lot of time talking with family members and patients themselves about kind of understanding the differences between, say, something like Alzheimer's disease and what dementia is. So dementia is not a single disease, it's an overall term used to describe a collection of symptoms. So it's kind of an umbrella term that encompasses a number of symptoms.

And those symptoms can be caused by a number of different things. So diseases grouped under the general term dementia are caused by abnormal brain changes. Dementia causes a decline in cognitive skills severe enough to impair daily life and independent functioning. So that's really key, and we'll talk about kinda what normal aging looks like and what typical memory loss may look like as someone ages. But the important thing you remember about dementia is that it's declining the cognitive skills to the point where the person's having a difficult time functioning day to day. So those memory lapses are really causing trouble in them being able to complete activities of daily living, being able to remember the people who are around them, what they need to do or what they have done.

So it's really affecting that daily functioning. So it's important to kind of understand that dementia is kind of this encompassing term about symptoms, and then the types of dementia get into kind of what the causes of those symptoms might be. So there's no one test to determine dementia. It's not a normal part of the aging process, as we said. Again, typical kind of memory loss or not remembering things from time to time can be something that we all experience. But having that, you know, disruption in how we

function day to day is not a part of the normal aging process. The diagnosis for dementia is based on a number of things, so a neurologist will look at things like the review of the medical history, laboratory tests, physical examination of the patient, assessment of characteristics, including changes in thinking and that day-to-day functioning behavior like we mentioned, there can be imaging that's done, like CT or MRI, and neuropsychological testing can also occur that can help to determine the diagnosis.

A specialist may need to determine the exact cause of the dementia diagnosis, so getting to the root of what's causing these symptoms to be arising in a person. Oops, skipped ahead there. Come back. All right, so again, we talked about how dementia is a group of symptoms. So what are those symptoms? So these are the things we wanna look out for in ourselves in loved ones, in patients, again, if they're starting to disrupt a person's daily life on a regular basis. So those could include things like language disturbances, so not being able to remember the names of common objects and things that they want to be able to express, could be that they're commonly calling things by a similar term, but not the correct term.

And again, this is happening on a regular basis. More problematic behaviors may be arising for a person. So we might see more repetitive question asking, the idea of kind of wandering, and I don't really love that term. I've heard some experts describe how wandering really, that term infers that a person doesn't have intent on what they're doing. And I think most patients who might be going into a different room or wanting to leave their home or a locked unit do have purpose in what they wanna do, they're just not sure exactly what that purpose is or how to kind of follow through on it. But again, these are these behaviors that are maybe popping up that weren't typical of a person before.

They're not sure of where they are, they can't find their way around from time to time, there might be some issues, again, with asking the same question over and over. Activities of daily living could be things like dressing, personal grooming, eating. We might start to see some difficulties there with a person. And again, that could be symptomatic of something bigger going on. And then personality disorders. So persons might start to be getting really disengaged, they might show some aggressive behaviors, they might just see some changes in who that person is and how they present themselves. And again, that's gonna be a telltale sign that there might be something bigger going on that needs to be investigated further.

So what are the causes of dementia? There are several. We have a list here for you to reference, but it could be anything from nutritional deficiencies to infections, subdural hematoma, poisoning, anoxia, brain tumors, metabolic changes, vitamin B12 deficiency, alcoholism can cause dementia, changes in mental health, depression. It's important to note too, that there can be some reversible causes of dementia. So something like mental health issues or even things like a urinary tract infection can cause some memory difficulties for a person. But once those things are resolved, we can see those dementias start to reverse. So it's always important to rule out things and have a full workup done on a patient to see what's going on.

Or if we see sudden changes happen, we might wanna investigate a little further to see, say, if there is something like a urinary tract infection or another infection going on in the body that's causing that, or again, changes in mental health status. Some medications may cause some difficulties with memory. So we wanna rule all those things out, but there's a number of causes that can lead to these diagnoses. General symptoms, as we talked about, we can see those changes in memory that disrupt daily life, those challenges in planning or problem-solving, starting to have difficulty completing familiar tasks. I remember one of the patients I've worked with stating that,

you know, one day they just started to really struggle with just figuring out how to make their coffee in the morning.

What are the steps? How do I organize things? And so that started to be a sign to her that maybe something different was happening and she needed to get that investigated further. Confusion with time or place, difficulty kind of translating visual images or spatial relationships. Like we talked about, maybe difficulty communicating clearly using the words that they want to use to clearly express themselves, and that can be in speaking and/or writing. Judgment issues, pulling back and out of social activities, again, mood changes, maybe misplacing things frequently. So again, all of these things could happen to us on any given day, given the amount of stress that we might have. But the idea is, is that when these things are regularly disrupting daily life for a person, that's when we're seeing a concern happen, and we wanna have that tested further.

Okay, so we're gonna go through a couple of different types of dementia here, and I really wanna stress that due to the fact this is a one-hour overview, I'm not going to get into the nitty gritty details on each type of dementia, but I wanted to leave these here for reference for all of you in your handout so that you can go back later and look at what some of the symptoms are of the different types so that you have a better idea of kind of what you might be dealing with with different patients that you might see. First type we're gonna talk about is frontal temporal dementia. So again, this is affecting primarily the frontal and temporal lobes of the brain.

We see abnormal amounts or forms of tau protein accumulating inside the neurons in those frontal and temporal lobes. This typically is a pretty rapid progression. We see changes in behavioral and emotional abilities. So planning and organizing, again, thinking what does the frontal and temporal lobes do so that planning and organizing can be effective, those really impulsive behaviors, which is a very hallmark symptom of this type of dementia, being more emotionally flat, or having really excessive emotional

outbursts. In terms of movement and language, we might see some shaky hands, problems with balance and walking, and difficulty with expressive and receptive communication. Lewy body dementia is another type, and we see abnormal deposits of more proteins called Lewy bodies affecting the brain's chemical messengers.

It's a similar type to Parkinson's type dementia. Another rapidly progressing type of dementia as well, and those symptoms include that inability to concentrate, difficulty paying attention and staying alert, being disorganized. Here's some of those Parkinson's type symptoms, that muscle rigidity, that poor coordination and flat affect, a lot of insomnia and some hallucinations happening here, which is another hallmark symptom. Vascular dementia is caused by blood clots that disrupt flow to the brain. So this is common with people who have a history of stroke. They may develop into having some more dementia-like symptoms due to having those history of stroke going on in their system. It's a slower progressing type of dementia. We see things like memory loss, expressive and receptive language deficits, so again, this is kind of that hallmark symptom, trouble following directions or learning new things, understanding written language, hallucinations, and some poor judgment here as well.

Mild cognitive impairment is something that has been more and more discussed over, I'd say, the past decade or so, especially. And this has two types to it. So we have amnestic MCI, which primarily affects memory, and then we have non-amnestic MCI, which affects other aspects of memory and thinking. So we might see people who have the non-amnestic type have difficulty with decision-making, judgment of time, and sequencing, so some things that are different from memory. This is likely to develop into Alzheimer's disease, but there are some ways that we can maybe slow that progression down. But individuals with MCI have twice as many hospital stays as older adults. Symptoms of MCI include increased forgetfulness, losing train of thought, trouble following conversations and instructions, making those decisions, again, judgment.

So we can see a lot of overlap between these types, but there's usually a couple of different hallmark symptoms that exist with each type. And again, we might see different parts of the brain being affected, depending on the type as well. Okay, and then we have Alzheimer's disease, so abnormal deposits of proteins that form amyloid plaques and tau tangles throughout the brain, so this is slowing down the ability for those neurons to connect and communicate. It's typically slow progressing. The biggest risk factor for Alzheimer's disease is a person's age. And we can see things from mild to severe symptoms when we're talking about Alzheimer's. So again, that memory impairment that affects and disrupts daily life, changes and challenges in planning or problem-solving, difficulty completing familiar tasks, confusion with time or place, we're seeing those visual images and spatial relationships being tricky, again, more problems with using words and communicating clearly, mood and personality changes, being able to be a little bit more isolated and not wanting to engage quite as much, and then those misplacing of things and losing that ability to retrace steps.

So those are our types. Again, I know that was quick, but I wanted to be able to lay that foundation for you so you are aware of some of those hallmark symptoms and kind what we're seeing in terms of commonalities across some of these types of dementias as well. In terms of physical considerations, we're going to see changes happen in a person's system that go even beyond what's happening cognitively. So we could see changes in the person's ability to swallow. That may lead to some malnutrition or dehydration as well, people forgetting to eat or drink, maybe not taking in the correct amounts or the right types of foods. Gum and dental disease, so a lot of oral changes that might happen for a person.

Infections, we might see gait being changed, heart disease happening, sleep disturbances, depression. So there's going to be a full body change that happens with these patients. So clearly, we're a lot focused on what's happening cognitively, but we

can't forget about the rest of the person's system and looking for signs and symptoms of trouble there and being able to work on those aspects as well. Okay, so now that we've kind of laid the foundation, understand a little bit more about what Alzheimer's and dementia might look like and how it might be caused, let's get into a little bit more about understanding memory. I really feel like this is a key part of understanding a little bit how dementia works, because memory can be that big hallmark symptom that we see across the board with a lot of our patients, and it can be something that we have to work with quite a bit.

Whether we're a therapist working in rehabilitation or working with the person psychologically or in nursing, those kinds of things, we wanna be able to understand kind of how memory works so we can assist the person in being able to stay as independent as possible, remember the things that we're teaching them, and being able to successfully support the patient as much as possible. So our question to consider here, is having a memory problem an expected part of normal aging? So I want you to just take a second and kind of think about that. You know, I think all of us, from time to time, have changes in our memory. And I know with a lot of the patients that I work with, their biggest concern is when they start to see some of these, you know, changes in themselves, what does this mean?

Does this mean that I have dementia? Does this mean I have Alzheimer's disease? Should I even disclose that to my doctor or to my family? Because maybe that's going to make them want to take my car keys away or not let me handle my finances. So I mean, is this something we should expect or not expect? The answer is, is that forgetting from time to time is completely normal and typical. It's going to happen to all of us. And that could be affected by stress, multitasking, again, like we said, medication or mental health. Normal age-related memory loss doesn't cause a significant disruption in daily life. So I know I've said that already today, but that's the

important thing, is we wanna look at kind of the quantity of how often this is happening.

If it becomes a regular issue that starts to disrupt how a person is able to live their life, is making them start to withdraw a little more, is it making them it harder for them to communicate clearly, then that is a typical problem. So typical forgetting and a little bit of memory disruption doesn't interrupt daily life. You know, forgetting where your keys are from time to time or somebody's name who you haven't seen in a little bit is typical. But when it starts to impair your very familiar functions, that's when we want to get that looked at a little further. So it's important for us to understand that even if people have memory issues, it doesn't mean that they can't learn.

Even if a person has a diagnosis of dementia, learning is still possible. So again, we might point out a lot of what the weaknesses are. We just went through laundry lists of different symptoms that people might have, given the different type of dementia they may have, but there are a lot of strengths that are still available. And I really think it's important for us, as healthcare professionals, to focus on ability. We have to be aware of what some of the weaknesses are, but we also have to look at what's still there and what we can work with. And I think when we change that kind of level of thinking, the way our perspective is on working with our patients, it kind of changes everything because we're looking for what they have to bring to the table and what we can build on versus what's weaker and what we can, you know, what we always have to maybe address in direct treatment and things.

Yeah, we have to be aware of those things, but we also wanna look at what we can use that the person has at their disposal to be able to assist with those weaker areas. So a lot of strengths exist, and two of those strengths here are the ability to learn procedures and the ability to read. Now, given, you know, the person has to have had to learn to read in order to be able to maintain that ability, but the ability to learn new procedures,

new routines, and to be able to capitalize on the ability to read in order to recall information is something that we can build upon. Research has shown that the learning of information and its retention depends heavily on how it's presented and how it's practiced.

So learning is possible, but we just have to think about how we're teaching the information, what we're teaching, and if it's meaningful to the patient, and then being able to practice and present it regularly so the person can kind of learn that routine or procedure and it becomes a little more automatic for them. So we're gonna talk about how that can happen as we get more into treatment today, but I think it's important to, again, take this idea that we have to be aware of the weaknesses, but we wanna focus on the strengths, and there are strengths that are available. All right, so understanding memory. So again, it's a very complex system in terms of what memory is and how it works, but I feel like I can give you a little bit of an overview here today, just to understand a little bit about what we're looking at in terms of ability, as well as difficulty people may have as they develop memory issues with a diagnosis of dementia.

So we know that memory is the continued processing of information and retention of that information over time. There's three main processes for how memory works. So the first one here is encoding. So this is how we learn information, and it's so dependent on attention. Really everything kind of starts with that, being able to attend to something, kind of drown out some of the distraction, and focus on a key element, whether that's during this presentation today while you're trying to learn, or whether it's someone trying to learn somebody's name in a conversation, we have to be able to attend to it first. Then we organize information. So we can organize incoming information in a lot of different ways.

We can do that visually, so kinda focusing on how something looks, acoustically, how something sounds, semantically, what something means, and then tactically, how it

might feel. So there's all these different ways that we can take our senses and be able to organize information so it becomes more meaningful for us. And then that's part of that encoding process, is we're organizing the information in a meaningful way, then we might go ahead and practice that through things like repetition, rehearsal, we might even use things like pneumonics, like using things like the ROY G BIV acronym here, which are the, you know, representing each color of the rainbow. That's a way of organizing information in a meaningful way so we can remember it later.

So you can think about all the different ways that maybe you've learned over the years as you've gone to school and taken tests, being able to rehearse information, read your notes, maybe rewriting your notes, maybe trying to visualize information so that it sticks with you in a meaningful way. This is all part of encoding, but again, that all starts with attention, and we can see a lot of our clients, patients have a lot of difficulty with the encoding process because paying attention can be one of those symptoms that can be very difficult. Then we have storage, so after we've encoded the information, we have to store it. So how long encoded information is retained? So this is where we get into the difference between short-term memory and long-term memory.

So short-term memory is our memory to retain information for only about 15 to 30 seconds. We can usually hold, in our short-term memory, about five to nine pieces of information. So usually, kind of seven is the sweet spot. If you think about the number in between five and nine. So a lot of times, even using this to think about how long your sentences are, your questions are, your commands might be to the patients that you work with, you might wanna stick in kind of that seven-word range because that's something that's short term, someone's gonna be able to process pretty well. It's also why phone numbers are the length they are. It's a way for us to be able to remember that information for a short amount of time and then forget it.

So this is typically information that we're going to use in the moment and then not take the time to encode it in a meaningful way in order to store it. Whereas with long-term memory, we have an immense storage capacity there, and we're going to take the time to encode the information in a meaningful way, rehearse it, and practice it so it can be used later. The final piece is the retrieval part of memory. And so this is where we're accessing that stored information. So it's information that's stored in short-term memory and long-term memory, but it's retrieved a little differently. So in short-term memory, we retrieve information in the order in which it's stored.

So again, the digits of a phone number, we retrieve it in the order that we learned it. In long-term memory, we retrieve information through association, so how we made that information meaningful, you know, and that could be going back to, again, what it looked like visually, acoustically, how something feels, who you were with in those moments, how that information is associated with other things that you're familiar with. So that's how the retrieval process works, okay? So with short-term memory, we're primarily seeing this affected first with people who have diagnoses of Alzheimer's or other dementias. So people are having more difficulty remembering things in the moment, right, being able to remember what they did a few minutes ago, or not being able to process directions very well or having trouble kind of following a conversation.

Those kinds of things start to fade. With long-term memory, it can be affected by dementia over time in both storing information and retrieving it, but aspects can be relatively spared over the progression of dementia. So the key phrase there is relatively spared. It doesn't mean that long-term memory is not affected by a dementia diagnosis, but we can see it be a little less affected over time, and we can see some aspects of it that we can capitalize on because it's still available to the person. So when we talk about long-term memory, that's kind of divided into two separate aspects, one being the declarative memory system, which is our conscious recollection

of particular facts and events, and the other is the procedural memory system, which is our memory for learning and executing tasks.

So things like reading, tying your shoes, eating, those are things that we've learned over time to do in a procedural, routine way, and we know how to execute those tasks, and so it's a different type of memory that we can capitalize on as part of the long-term memory system. So to kinda get into a little bit more detail about these different types of long-term memory, I like to use this visual here from Dr. Larry Squire. He really has been, really forefather in being able to understand memory and dementia. And this particular model of memory really helps me to understand a little bit more about how long-term memory works, but I also use this regularly when I'm talking with patients and family members about how the changes in long-term memory are happening with a person who has dementia.

So you can see here on our left side, we have the declarative memory system, and like we said, that's part of long-term memory that holds our knowledge of facts and events, what we did earlier today, you know, what we did last week, who's sitting across from us, our family members' names, the vocabulary we use to express ourselves, and then our knowledge of the world. So that's kind of everything that we've learned over time that's kind of stored as fact. An example I often give is, you know, knowing that Paris is the capital of France. We learned that at some point in our lives and it kind of stored it away, but it's not necessarily tied to, you know, anything personal to us.

We can see with declarative memory that this is that part of long-term memory that can start to be affected by dementia pretty early on, people having difficulty remembering maybe the names of people around them, what they had for breakfast or what they did earlier in the day, the words they wanna use to express themselves, maybe common facts and things that they knew before are a little bit more difficult to retrieve. I always think about kind of memory as a file cabinet drawer where the drawer is just a little bit

stuck, you gotta pull a little bit. So with declarative memory, you can be able to help a person remember some of this information if you give it a little bit of a tug, right, if you give some cues.

You know, "Oh, your daughter's name starts with an M." "Oh, that's right, it's Mary." Or, "What's this thing I have in my hand here? It's something that we eat with, it has tines on the end of it." "Oh, it's a fork. That's right." So if we give people some cues, we can sometimes pull some of this information loose from a person, but it starts to get a little trickier as time goes on. So it doesn't mean we can't access it, it just might be a little trickier to access, where on the right side here, we talk about the procedural memory system. And so again, that's our memory for procedures, how we do routine things, our skills or habits.

It also holds information like priming. So this is how we are able to kind of practice makes perfect, how we're able to learn things over time, the more we're exposed to it. And then the idea of classical conditioning, meaning that a certain stimulus may elicit a certain response from a person. So how we can use those things within our long-term memory. So this is that part of long-term memory that can be relatively spared with a person who has dementia, and so we can capitalize on it. We talk about skills or habits. Reading, like we said, can be something that we can use here because that's a skill or habit that lots of people have learned to do in their lifetime and can do pretty automatically.

And so it's something that tends to be relatively spared and maintained throughout the progression of dementia so we can capitalize on it. With priming, we can use that idea of being able to learn with repeated exposures to things. So being able to teach somebody to tuck their chin before they swallow if they're having difficulty successfully swallowing and safely swallowing. We might give them lots and lots of practice of doing that, maybe even having a visual in front of them that reminds them to tuck their

chin when they swallow, and that can assist with learning that new routine. I always use the example of the dining room in, you know, any facility setting where the person, you know, came in maybe to that facility setting with a memory issue, and somehow they have learned where their dining room chair is.

How does that happen? It's a great example of how learning can still happen with this population, like we said, but also that with repeated exposures going back and forth to that chair multiple times a day for meals and activities and other things, they have now learned that routine or that procedure to go to that chair. So learning is still possible, we can capitalize on procedural memory, and we can build on that when we are thinking about how we're treating this population. Okay, so come back to this model when you're doing caregiver education, if you wanna be able to explain things to patients. Again, why they're having difficulty remembering the name of their daughter, but are having no problem remembering how to still play the piano, that's the difference between the declarative and procedural memory, okay?

All right, so now that we've understood a little bit more about how memory works and what some of the weaknesses might be but also what some of the strengths are, let's carry this information forward into part three here where we talk about treatment trends and communication strategies. So our question to consider for this section, what are some treatments or strategies you have used or seen used with persons with dementia or Alzheimer's disease? So take a second and just kind of think about what tools or tricks you have used, what treatments you have seen be useful in your practice or you've seen other people use, and let's see if some of those are the ones that we discuss here today and be able to get into a little bit more depth about them.

All right, so just a bit overview of treatment options. Now, there are pharmaceutical and non-pharmaceutical options for treatment, so drug and non-drug options. So we're gonna talk about both of those today. We always wanna consult healthcare

professionals to navigate the many options of how to treat. Patients' needs may change over time as the disease progresses, so that's going to change what kind of treatment modalities we're using with people. Also really important to look at what stage of dementia the person might be in. So I wanted to just briefly kind of set the stage there in terms of how progression might happen. So in the earlier mild stages of dementia, the symptoms are not as apparent.

So we might see some difficulty thinking of words we wanna use, maybe the patient's having difficulty losing and finding objects, organizing and planning. So this is that early stage. When we move into middle or moderate stage dementia, this is kind of the longest stage that we see. More pronounced difficulties overall, forgetful of personal history or events, there's more confusion happening, person might be getting lost a little bit more. So things are kind of upping the ante a little bit here and being magnified a bit more. And again, that person's daily life is really being more and more disrupted. They're likely needing more and more assistance in their care. In the later severe stages, we're seeing increased severity of symptoms overall.

So more consistent care, much more difficulty communicating and responding to the environment happening here. So important to look at these stages because that's going to affect the type of treatment that we're going to be providing. There are approved medications by the Food and Drug Administration, the FDA, for Alzheimer's disease. So I did wanna touch on those so we can be aware of that in our vocabulary when we're looking at chart reviews and understanding what's going on with the patient. It's important to know what's out there and what might be being taken by some of our patients. So there are some drugs that ease symptoms, they target memory issues, behavioral changes, sleep disturbances, et cetera. And then there are drugs that actually have been found recently to be able to slow the progression of dementia.

So that may be through IV infusion therapy, either every two weeks or once a month. So those two drugs include Leqembi and Aduhelm, and it's important to just know what those drugs are and what they do and that some of our patients may be taking them, but there are some good strides that are happening right now in terms of pharmacological interventions, so that's exciting. Since we we're not getting into a ton of that today, given this is an overview, I wanted to provide a great link from the Alzheimer's Association that talks about medications for dementia. And so you can see that link here. I encourage you to head on over there and take a little bit of a deeper dive so you have a full understanding of what some of the medications are that are out there.

Then we have kind of the non-pharmacologic or behavioral treatments for dementia. So I just wanna touch on the idea that those kinds of treatments can be direct or indirect. So a direct behavioral treatment is when professionals intervene directly with individuals or a group using an intervention. So if as we as healthcare professionals are working with a patient and directly providing some treatment, that would be, again, a direct type of intervention. An indirect one is another one that we do frequently as part of kind of our holistic idea of care. And this is when professionals train caregivers in an intervention, we modify the environment, we develop activities to maximize function. So this is when we might be providing some ideas, some support, some education to caregivers, we might provide recommendations for how to modify that environment or providing ideas for things the person can do.

So that would be more indirect because then we're showing them as caregivers how to do these things and change the environment or the activities, whereas with the direct, we're actually working usually one-on-one with the patient. Okay, so let's look at some of the treatments, the behavioral treatments that focus on the individual. So those can be things like increasing sensory stimulation, so things like music and art therapy would fall here. Maybe changing communication strategies, so we might be offering

reassurance, displaying empathy, providing more direct communication and validation of a person's feeling. So these might be some things we're directly doing to help the person kind of navigate the changes that they're experiencing and being able to feel safer in their environment.

We also might provide more personalized activities, so that might be using more Montessori-based ideas, we'll get into that in a moment, as well as reminiscence ideas, so another very common treatment is using the idea of reminiscence to be able to spark memory and engagement with a patient. The use of visual and graphic supports is a really common research-based type of intervention for persons with dementia. And again, that falls back to the idea of a person being able to hopefully maintain that ability to read or being able to respond to visuals, very simple pictures and things like that. Those kinds of things can be really important to be able to help a person remember different tasks, figure out how to navigate their environment, maybe remember, you know, things about their past, their family members and so forth through something like a memory book.

So this can be a very common treatment intervention that we might use. Increasing and maintaining routines. So like we said, the procedures are important and people can really thrive in routine, so we might want to institute more of those things to help the person kind of navigate their day. If they have a set structure that happens, they get more into and comfortable in that routine, and that helps care to go more smoothly. The person has, you know, better expectations about what might be happening in their day. Again, they're going to feel more safe, things like that. And then we might do things like redirection to alter the patient's focus. So if the person is maybe a little fixated on a certain idea or is upset about a certain thing, we might try to redirect into a more positive activity or idea to help them to focus a little bit more.

Okay, so let's get into a little bit more detail about each of these treatment ideas. Validation therapy, as you can see here, is that process of communicating with someone and validating their feelings about whatever's real to them. So it may not match our reality, but it matches what their reality is. I remember having a patient who lived in a locked unit, memory unit in a facility I was working in, and they thought they were on a cruise. And you know what, that's a pretty great reality. They had an activity director, they had meals a few times a day, someone was cleaning their room. And if that's their reality, that's a good thing. We can play into that a little bit more.

That's going to help them to feel more comfortable and confident with where they are. So you wanna be able to validate what that person is coming to the table with and make them feel okay about it. It's a direct contrast to reality orientation, so maybe not reminding the person over and over again that they have a memory problem and they can't leave and this is where they need to be. That may cause more disruption than actual help. The goal is to understand the meaning behind a person's behavior and validate their beliefs. With reminiscence therapy, like we said, it focuses on facilitating the patient with dementia to remember experiences in their life and assisting in sharing those memories.

A lot of times, we see this frequently done in group settings. It promotes that social interaction, conveying of positive emotions, and self-awareness. So we might see people perhaps sitting in a group and holding a rotary telephone and talking about when they, you know, how phones used to look and when they first had a phone in their home, and all of those kinds of things. We might use actual objects and pictures that are gonna help spark some of those old memories and help people to connect. Montessori-based programming uses Montessori educational principles to provide constructive engagement, meaningful activity, and the practice of skills to older adults. It's important to understand that Montessori programming isn't treating older adults as children.

What it is doing is using some inspiration from the Montessori classroom that's helping children to learn to be more independent and using some of those principles to be able to help older adults remain more independent and keep some of those skills going. So there's a lot of great research out there that has shown that it's helped to increase overall participation in activities and staff really enjoy it. There's international implementation of this technique, so there's a lot of good research behind it. So it is something I would encourage you to look into in terms of another programming method that uses, again, these Montessori principles to look at altering materials and providing activities that can help people learn new skills or even engage in a better way.

That idea of visual and graphic cues, as we brought up, is something that we can really use because it's widely documented as a successful treatment strategy with persons with dementia. Things like memory books, memory wallets, are useful treatment tools to help our patients. So if you're not familiar with those, basically a memory book or a memory wallet has simple pictures with simple text underneath it, maybe one sentence or two sentences that maybe shows a person's home and says, "This was our first house at 92 Chestnut Street." And then that person is able to look at that book, look at that picture, be able to simply read the sentence, and be able to engage and connect and remember a little better.

You can use these things to be able to recall family members' names, you can even have parts of memory books that have maybe the routines or sequence for how to complete activities of daily living. So how to get dressed in the morning, the steps to brush your teeth. So being able to use visual and graphic cues can be assistive in a lot of different ways. Again, using meaningful pictures. Short, clear, concrete sentences describe the pictures to help the patient with dementia recall important personal information and routines. Space retrieval training is another great research-based

intervention that helps persons to remember information for longer periods of times. So maybe days, weeks, months, even years, some of the research has shown.

Basically, it's teaching patients to compensate for those memory impairments, really use, capitalize on procedural memory, and include reading and repetition priming. So all those things we talked about under the procedural memory system back in our understanding memory section, this technique of space retrieval really capitalizes on those remaining abilities in that long-term memory. Basically, all it is is spacing out the retrieval of information. So what we're doing here is, say, using a prompt question like, what should you do before you stand, and teaching the patient the answer. Maybe it's lock my wheelchair breaks. So what you're going to do is teach the person that response and practice it over progressively longer intervals of time until it becomes more encoded and stored in procedural memory.

So this can improve patient safety, so we could use it for things like transfer, swallowing strategies, even precautions, maybe after a hip replacement, something like that. Recall of meaningful information, like family members' names or where they are, the name of a facility, where their room is, how to complete daily functions, like completing ADLs, taking their meds, paying bills, attending appointments. So there's a lot of great things you could use this technique for as well. So I encourage you to look further into it. I know as a rehab professional myself, a speech pathologist, I use this regularly with my patients as part of their treatment, and it is something that can be billable to use as well.

So it can be a really great resource for our patients. Getting into some caregiver and environmental behavioral interventions for dementia, some of the caregiver-focused ones would be more education-based. So we're looking at person-centered care, trying to teach different communication strategies, making sure that we're supporting those caregivers' mental health. We know that not only does, you know, the mental

health take a toll when a person has a diagnosis like dementia, but think about what that does to the caregivers and the stress on them in order to be able to care for their loved one and see these changes in them. So really helping them manage that burden and take care of themselves is really part of our role.

And then how to understand and manage behaviors. Environmentally, we might wanna look at helping to change some of the way the environment is set up to help the patients. So reducing overstimulation and even understimulation in the environment to hopefully bypass safety issues and lack of routine and things like that. So with overstimulation, maybe we wanna reduce some clutter, reduce some noise, you know, start to push back on a little bit less people in an environment that might stress somebody out. Understimulation, if there's nothing to do, people tend to find other things to do, right? So we wanna provide interesting things in the environment to look at, activities to engage with, because, again, with kind of that idle mind, can sometimes, you know, then direct to, why isn't my family coming to visit?

How do I get out of here? What is in that other person's room? So the more stimulated and engaged a person is, the less likely some of those thoughts might pop up and some of those behaviors might occur. If a person's experiencing some sensory deprivation, so maybe those visual and hearing changes that might accompany aging, we wanna make sure that we compensate for that. Making sure they have their glasses, hearing aids, making sure that we use, you know, magnification if needed, or even microphones and things to make ourselves a little more loud and clear. We wanna look at safety changes too. So in the environment, making sure that no dangerous things are in the environment, making sure that a person can remain safe and not escape an environment if they're at risk of being unsafe on their own.

In terms of communication strategies, so again, some of the things we might be teaching the caregivers or we might actually be doing ourselves. Again, it depends on

the stage of the disease the patient is in. So again, that early, middle, or late is going to affect how we alter how we communicate. In those early stages, we don't wanna assume anything about a person's ability to communicate. So don't start dumbing things down and slowing things down just because a person is starting to have a little bit of cognitive impairment. Speak to them as an individual, include the person in the conversations, speak directly to them and not talk about them to others, and give that person a little bit of extra time to respond and process information.

You know, not always answering the questions for them, but giving them a second, a beat or two, just to process and consider something, and then seeing if they can respond. In the middle stages, that one-on-one communication is usually best. You wanna speak maybe a little more slowly, a little more clearly, maintain eye contact, give that processing time, support that communication with visuals, so maybe you have some things written down that also kind of restate what you're saying, and that helps them to read those things and listen to what you're saying in order to be able to process the information. In the late stages, again, still can communicate with people, you just have to change how you do it.

So you wanna approach the person's front, identify who you are, treat the person with respect and dignity and not talk down to them. Try to infer emotion by the tone of the person's response, so they may not be making a ton of sense in what they're communicating, but the tone of their voice might indicate if they're excited about something or if they're upset about something or nervous about something. So then you can kind of play into whatever that emotion is that's being conveyed and try to alter your communication or provide empathy or understanding based on what their emotional tone is. You know, there's a lot of different approaches that we can look at here, but you know, we might wanna provide some verbal compensatory strategies, like describing or spelling a word that can't be recalled or asking a clarifying question.

So being able to kinda walk a person through. Don't just go ahead and disregard what the person's saying or make a guess as to what they want or what they're trying to say. Try to dig in a little bit. "Are you talking about this? Do you mean this or this?" That might assist a little bit. Nonverbal compensatory strategies, we might use things like pointing, gesturing, facial expression to help them communicate their wants and needs, and we might teach them those kinds of things too, how they can point to something that shows how they, what their level of pain might be, or have them exaggerate a facial expression to be able to convey the certain emotion that they have when they're unable to do that verbally.

Written compensatory strategies, writing down a word, or even using finger spelling when unable to verbally express a word. So we might teach somebody, okay, if we can't think of what we wanna say, let's try writing it down. And that might mean be another modality that the person can effectively express themselves. So we might see difficulty with some of the verbal expression, but there might be some other ways that we can assist the person in being able to express themselves in a different way, and that might come through. These are some of those non-verbal strategies or even written ones. When we think about how we're communicating and conversing with people, we might wanna structure our conversations differently, right?

So incorporate questions that incorporate choice. Would you like spaghetti or pot roast tonight? Versus, what do you want for dinner? Think about how broad that question is, what do you want for dinner? Then that person has to go to that file drawer and that file cabinet in their memory, find the what's-the-food-for-dinner drawer, open that up, and be able to look at what's there, what options might be available or familiar to them, and be able to express that. And again, if that drawer's a little stuck, that can be really tough. So instead, let's make it a little easier. Give them a more fixed choice, spaghetti or pot roast. Then the person has a direct, you know, two choices that they can look at and be able to express that choice.

Asking questions that can be answered with a simple yes or no are great. Again, the more open-ended the questions are, the more difficult it might be for the person to process and actually access the information in order to answer it. Some of those open-end questions that share their opinion, however, can be good ones. So how do you feel about the food served here? You know, instead of, what did you have for breakfast? What do you think about this? I've had some of the best conversations with some of my patients by asking their advice. What should I take as a hostess gift to this party? What should I think about when I'm going to buy a new car?

You know, what's your opinion on this versus that? Those are things that people really love to offer their opinion about. And again, their opinion can't be wrong. A person might not, you know, might not agree with what you're saying in terms of what your opinion is, but it's yours. And so a person can give feedback on what they think about something and not have the pressure of being able to think about, you know, what the right answer might be. So those might be some ways that we change how our activities are structured, how our conversations go with people versus asking a lot of direct questions that are gonna rely on more of that declarative memory that might be a little bit more difficult to access for a person.

All right, we're moving quick here, but we're getting through what we need to. So hopefully that gave you a nice overview of some treatment options. And again, I encourage you to dig a little deeper into some of the ones that were mentioned so that you can incorporate those into your practice. Here in part four, we're going to talk about supporting patients in ADLs and care planning. So our keys to success here, learn about who the patient is, look at what their behavioral patterns are, who is this person, and what do they do all day long? Try to give them back some control, educate as much as possible, again, including that patient. Praise, praise, praise. Can't say enough about this across the board for anything, whether it's the patient and them

being able to do something and use a compensatory strategy effectively, to a caregiver being able to implement a recommended treatment strategy.

Being able to recognize that and give people the praise and positive reinforcement that goes with that can make a huge difference, and that can make people want to continue it. Validating feelings, keeping things simple, asking questions that allow those choices, really key. Again, optimize that treatment environment. We know that attention can be tricky for these patients, so we wanna eliminate some of those distractions, build that consistent routine. I always say, end on a successful note. At the end of any treatment session I have as an SLP or any conversation I have, try to end it in a way that's going to bring some joy. You know, ask their opinion. What did we think about this? What are we doing later?

Let's talk about this or that. You know, being able to make them feel good about something. If you're working with a patient and they're working hard and maybe struggling a little bit, that's okay. There might be learning happening there, but we always wanna make sure that we end our interactions with people successfully so they want to continue to be with us and to work on these things and feel good about themselves. We can use meaningful tools, like photo albums, music, pets, hobbies, interests. In order for us to wanna learn anything and remember it, it has to be meaningful, so that is key. If the person doesn't see the reason behind what they're doing, they're not gonna wanna participate in it or remember it.

So try to find that in with a person. What might be the thing that really hooks them in and makes them wanna learn? Sometimes I'll talk to the patients and say, "What's something that you really wanna remember?" And they might say to me, "Ah, I can't remember anything." And I say, "Well, if you can wave a magic wand, what would it be?" And then we maybe start there, because then that's gonna get their buy-in, they're gonna see that maybe they can learn some of this information in a new way, in

a different way, and that might really help with their self-esteem and their motivation. It's a holistic approach in terms of working with this population.

So we have to have a support team. Every person who works in a facility or is in a family or in a home is part of that dementia care team. So you can see everything from the physician to the social worker, we all have to work together to develop interventions, counsel, educate, talk about what works for people, really important. Keep those goals realistic, simple. Remember that we have a lot of things in our toolkit, so if one thing doesn't work, try something different. Patient safety is our priority, so we wanna, you know, maintain safe and adequate nutrition and hydration, eliminate falls, mitigate injury due to something like maybe wandering and reducing aggressive behaviors. Those are our key points.

So we can work through those things and allow our persons or patients with dementia to stay safe. These should be where we're kind of focusing our goals. Build education to every treatment. So again, we wanna document education, as well as give it. And that's really important when we're thinking about what our documentation is, especially for Medicare. We wanna be able to see, they wanna be able to see how this care is being pulled forward and how people are being educated. So again, goals can and should be measurable, attainable, and functional, can usually fall into some main categories, like improving communication, oral intake, and cognition, but there's a lot of other ones that can happen as well.

These are some examples of some long-term goals. Again, due to time, I'm not gonna focus on them today, but you can see that we are really looking at safety here. Ambulation, choking, being able to find a room, that kind of thing. Here's, again, some other examples of how to maybe incorporate some of the treatment methods we discussed into some of the goals that we might use. Again, document that education. Let the people know that the caregivers have demonstrated some understanding of

some of the precautions we might recommend. And if they need additional education, we might even be writing goals for them. In part five here, we're gonna talk briefly about understanding and managing behavior because that is such a key part of working with persons with dementia as they progress through the disease.

So we're gonna spend a little bit of time in just understanding a little bit more about what behaviors we might see. So take a second here and think about what some common behavior issues are that you see with someone who has Alzheimer's with dementia. The first thing we wanna do when we're kind of analyzing behavior and trying to understand it, just ask why. Why is this behavior occurring? The answer should not be because they have dementia. It should not be that they have a certain disease and that's what's causing it. There are other reasons there that are causing the person to act the way they are, and we don't wanna necessarily just blame the disease. So we wanna brainstorm all the possible reasons.

Is it a physiologic change? Is the person having change in, say, an infection happening, loose dentures that's making them spit out all their food, them not being able to see as well, so they can't see the room number and be able to find their room? You know, are there physiologic changes that are occurring that maybe we can change? Maybe we change some of the environment to be able to help the person. So maybe that's causing some behavioral disturbance. Maybe they're over or understimulated. Maybe they are, again, not able to read and easily navigate the environment they're in so they need to learn it a little bit better. Maybe a lack of meaningful engagement. If people are not engaged in something that's meaningful, that typically may lead to some behavioral outbursts because the person's just plain bored, and they need something to do.

So maybe providing them with some more meaningful engagement is the way to go. And then maybe they're seeking attention or social contact or reassurance. Sometimes people ask the same question over and over again because that finally gets the

attention of somebody. So we have to ask, why is the behavior occurring? And then work our way through this list and see, list out all the possible ideas. Why might this be happening? Could it be this, could it be that? And then start to work our way through some, you know, starting to apply some of these treatment ideas to be able to see if they remediate the behaviors or not. We also might wanna ask, who owns the problem?

Is this an us problem as a caregiver, or is this an actual problem and safety issue for the patient? That might change how we look at how we work on the behavior. Sometimes asking the patient directly can be the straightest way to finding out what's going on. I've asked several patients, "Well, you know, why are you so upset? What's happening there?" And they might give an answer that doesn't make a ton of sense at the time, but if we start to work through some of these other issues, some other reasons, it might directly lead us to why the behavior is occurring. Maximize remaining abilities to overcome challenges and develop appropriate interventions. So we wanna look at what might be the behavioral issues and then think about what's remaining for these people and then being able to build on that.

Find the individual strengths and build on them. So observe the client. Like we said, see when things are happening and what might be a triggering incident that causes a behavior. Maybe they're always getting upset right before meals, but they're being wheeled down to the meals too early and are left sitting at the table for a half hour before their food's coming. Maybe that's when some of those things happen, so maybe that's when we need to be able to provide an interesting and engaging activity for them. Ask family and staff what might be some of the reasons for the behaviors or what some of the things are that they say to help the person to calm or redirect.

Those can be really great keys to being able to help. Provide opportunities, engage in activities, provide roles to people. Remember that if they're living somewhere, this is

their home. Whether it's their actual home or they're in a facility setting, we wanna make them feel part of an important to that environment. So provide them with roles to assist, let them offer opinions. That can go a long way in helping a person feel like they're appreciated and that they're safe. Again, here with coping strategies, we wanna monitor personal comfort, avoid confrontation. I think really responding to the emotion being conveyed, not the behavior. So they might be acting a certain way, but is that coming from them being anxious and them always asking when their family's coming?

How can we reassure them? You know, what emotion is being conveyed? And then maybe act on that more than the actual behavior, okay? The Alzheimer's disease has a wonderful behaviors brochure that I listed here and a link to it. I highly encourage you to check that out to think a little bit more about understanding behavior in some ways that you can intervene with it. For our final part here, we're gonna talk about counseling, educating, and supporting families. So for the family, we wanna start immediately. Give a little bit of education at a time so as not to overwhelm them, keep things simple. Allow them time to kind of be able to grasp what we're telling them.

Be realistic in your expectations of them and their goals that you set for them so they're not as overwhelmed. And preparing for the future is always important too. Support groups can be wonderful, and some people might push back on those from time to time, but I think over time, as they trust you and you talk about how there are other people out there who are feeling the same way they are, they may be more open to reaching out and joining one of the local support groups. For the patient, again, include them in the conversation that you're having. Don't assume they don't understand things. Choose the appropriate time for discussion. You know, when they're agitated and so forth isn't the time to kind of get into some of these things, but when, you know, they're calmer and, you know, you've just finished something successful, it might be good to discuss some things.

Grief needs to happen, and we need to allow that to happen, both for the patient and for the caregiver. So allowing people to feel the emotions they do, empathizing with them and providing support is really, really important. I listed here the five stages of grief, just so we can keep that in mind because our patients and our caregivers are going through these things. So they could be denying that something's happening, they could be very angry about it and maybe even take that out on their caregiver. Sometimes we act the most difficult toward the people who we love the most. We might bargain, so being able to look for how to magically fix things, what can we do here?

There might be more depression and sadness once we start to, you know, come around to that this is really happening. And then finally we get to the acceptance, where, you know, we have more of a calm and relaxed relationship, we kind of understand that this is, you know, something that we're dealing with, but we have tools that can assist us and people around us to support us. So we have to know that our patients and our families are going through this and support them at these different stages. So as we come into our summary conclusion here, I just wanna point out that it's really important to acknowledge how wonderful it is that all of you took this course.

The simple act of caring is heroic, and all of you joining me today for this presentation, this overview of dementia and Alzheimer's, just proves how caring you are and how much you wanna be able to give back to the patients and families that you serve. So that is a heroic act, and I appreciate you continuing to demonstrate that heroic act and all of your care of your patients. And I thank you so much for joining me today. Thank you.

- [Amy] All right, thank you so much, Megan. We really appreciate you spending the time to share your expertise in this area, and it's really appreciated, so thank you for that.