[MUSIC PLAYING]

ERIC RODRIGUEZ: Judy and her cohort insisted that we get our outlines in a long time ago. And life being what it is, the world has changed since I submitted it. So some of the things that I say in the outline are predicated on things that are no longer true, OK? And it's very disappointing because what's no longer true is that we don't seem to have a good candidate drug for disease modifying therapy for Alzheimer's disease in the pipeline anytime soon.

The most promising candidates have been pulled. And the amyloid hypothesis has taken some major hits in the process. So you'll see when I get to it that I'm-- I was anticipating the smoke signals or the tea leaves were indicating that things were going to be a lot better than they turned out. And I was anticipating we might have to be getting ready for that.

I like to start with the straw man that you then proceed you hope to beat up and render helpless. So the straw man is that there's no point in doing assessments of memory problems. And I have to tell you that earlier in my career, I kind of subscribed to a lot of these notions. And they've been beaten out of me, the straw man, over time. And I've come around to a very different point of view.

I don't imagine that I can change your way of thinking about this in 30 minutes or whatever. But I'm going to try to present some arguments to the contrary. In any case, we all know why, we don't jump to evaluate memory problems. It's time consuming. Patients may not care to have that done. By the way, I'm going to be relying on my outline a lot, so I won't be going over every little thing in detail. If you want to follow, you can follow there, page 60, I think.

There are a lot of charged issues involved-- driving being the one everyone thinks of. But that's not the only one. There are other what I term surrenders of autonomy that you may have to participate in enforcing. There's no single diagnostic test. There's no clear pathway to a diagnosis. When you do get to a diagnosis, you're usually fraught with ambivalence about it-- is this right, wrong, maybe.

We don't have great treatment. The treatment we've got is basically counterbalanced by the downside of the labeling stigma attached to telling somebody they have, for example, Alzheimer's disease. And in accord with the thinking of the US Preventative Services Task Force back in 2014, it's hard to make a good evidence-based case that you can confer benefit on your patient by picking these things up early because you could wait until complications occur and deal with them at that time.

I happen not to think that's true. And here's why not. So this is the countervailing argument. First of all, most of us in the room are providers. And our job is to confer benefit upon our patients and to their families, especially when their families are in the role of caregiver. So this is one way to do it.

It's also the case that sometimes medical disorders present as cognitive change, the canary in the mine, the brain being the canary in the mine for the body of the older person. So we may get on the trail of a medical disorder by pursuing their cognitive disorder. We can avoid sending them out of the room with a notion that they have Alzheimer's disease when in fact they have a medical disorder by evaluating more carefully. What you don't want to be in the position of doing is rolling back a diagnosis of AD and having to concede that maybe that was a little hasty of you.

You can perhaps protect the patient, the family, and even the public from some of the harms that may ensue when somebody with impaired cognition is exercising full autonomy. You can provide some direction. You can provide some supporting information where that's needed. And you can, I think, importantly in this era of patient-centered care begin to adjust your goals of care and your treatment plan so that it is more congruent with the status of the patient with the cognitive disorder.

Big picture issues-- those are some clinical issues. Big picture issues-- there are obviously huge numbers of people currently and coming down the pike who will be afflicted with these disorders. They will not be adequately handled in the specialist sector.

That's my lingo by neurologists. There aren't enough of them. And there particularly are not enough cognitive neurologists to go around. So primary care is going to be the place where a lot of these folks have to get their care. And we might want to try to rise to that occasion.

Now, here we go back, possible advent of disease modifying treatment. My guess is it ain't coming soon. There is one fairly promising drug still in the pipeline. And the research plan there is quite different from the others.

These people are being treated with solanezumab before they have any evidence of cognitive disorder. So these are volunteers who step forward saying, I'm worried, perhaps based on family history, that someday I will have Alzheimer's disease. They go off. They have a PET amyloid scan.

The amyloid scan shows significant burden. And they get put into a treatment trial. And that drug may stand a chance of showing some effect because they are catching people so very early. And nobody's done it that way so far.

So I'm going to skip a lot of this because it's not the case that there is effective treatment now. And there may well not be for some time. But if and when there is, the notion is it's going to be targeting the very earliest stages of the disease as in the case I mentioned where they are targeting the preclinical stages of AD, since we now know that AD is working its wonders in the brain for decades ahead of the time that it actually presents. So if ever there's something effective, it's going to be for people who have the mildest forms of disease, which means that if this emerges, those of us in primary care will be stuck with the nasty job of telling people with moderate and advanced dementia that they're not candidates for this wonderful treatment that the media is going gaga over.

So what do you have to do if you're going to do an evaluation? And so I'm trying to pare it down to what I think is the bare minimum for an adequate evaluation. You need some history. Critical elements of the history include onset-- how far back can we trace change, and what happened since that time. How did it go-- slowly, rapidly, by increments? What was the process of change?

And it would be nice, maybe not as critical, to identify the affected domains. What came first? Was it in memory? Was it language? Was it behavior? That can help steer you toward a potential cause of a cognitive disorder.

A physical exam-- the important elements are going to be the neurologic, looking for focal findings as evidence of cerebral vascular disease or structural brain disorder. And parkinsonian signs for Lewy body and dementia in Parkinson's-- vascular change-- evidence of that for cerebral vascular disease. Another, I think, and I've come to be persuaded of this because I gotta tell you, I've been a skeptic much of my working life, is a scorable cognitive screening test has great value in a variety of respects.

Activities of daily living are essential. You have to go there. And you can only go there incidentally except for the mildest cases of mild cognitive impairment when you've got a good informant, and then a medical evaluation.

So again, this slide pertains more to the eventuality that we are asked to begin picking up individuals with very early disease. And it just points to some of the levers or mechanisms we may have that could help us to do that. I would just scroll down to vocational function there. It is a very sensitive probe in any case. Somebody who's still working may be able to tell you about difficulties they're having there because work-related responsibilities can be the most demanding things that individual encounters. And the earliest signs of cognitive impairment may show up in that context.

Why do I come down heavy on doing cognitive screening tests? For one, and this is kind of how I learned it, that there are patients out there with extremely well-preserved social and verbal skills, like maybe me, OK, who are masking thereby a lot of cognitive loss. But they can pull the wool over your eyes in casual conversation and leave the room having escaped your scrutiny because you didn't test them. So I am very much in favor of testing. Things will emerge there that might not otherwise be evident.

The score that you get establishes a baseline. It may not be that patient's optimal cognitive function during adult life. But it's where they are when you found them. It helps you to estimate the severity of their impairment to put a stage to their decline.

And if you do the testing in the presence of the family, it can be a massive eye-opener to family who are in denial or who are not very astute observers. They will see things they can't quite believe, so the jaw dropping in the seats behind the patient or the efforts to coach Mom or Dad through the test as if, come on, you know you know the answer to that. And they can't quite accept that Mom or Dad doesn't. It can serve as evidence to support recommendations you make that may be contentious. And it can support your judgment if you're asked to regarding decision-making capacity.

Which tests to use? A scored test is simply the most important thing. It doesn't matter so much which. But there are some differences. We have a test, the mini cog, that takes three minutes. It's pretty decent. I like to use that when I have a patient who's antsy to get out of there and is not happy about going through this. Their tolerance may allow them to complete the mini cog.

If you are dealing with a patient who looks to you like maybe they have a cognitive issue, maybe they're early MCI, the MoCA is your best choice there. It is the most sensitive of the three I mentioned to MCI and earlier mild dementia. It's stronger in terms of executive function than the other tests that we mentioned.

You must have an informant if you choose to do the GP cog. And I like to do the same test over and over. So when I'm sent a patient whose PCP has done, for example, a Folstein, which I don't favor particularly. I will still do the Folstein because I want to compare scores over time and chart a trajectory.

How to interpret the test? As you know, it's in your syllabus. I'm not going to go through it except to skip down to the MCI range on the MoCA. So the MoCA, being good at detecting MCI, has a range typically in the 18 to 23 area that captures most of the population that we would otherwise consider to have MCI.

The lower end of that range-- 18, 19, 20-- that might be MCI for older people. The upper end of the range might be MCI for younger people. But if you start doing these tests and using them regularly, you will develop your own sense about what a score means. And when you do go about interpreting, try to bear in mind that there are a lot of confounders that may interfere with optimal performance by the patient.

What about activities of daily living? This is an essential to the evaluation. It's essential for a lot of reasons because staging of cognitive disorders, particularly getting into the stages of dementia, is wholly dependent on knowing what they're capable of doing and not doing. You must know that. And you only can know it if you have a good informant who provides reliable information about it.

The ADL assessment also kind of spells out for you what kind of help does this person need. If the issue is IDLs at the top end of the spectrum, medications and finances, OK then, family or somebody, POA, has to step in and help with that. If it's now approaching the bottom end of the IDL scale, then you know that next on the order of business will be providing help with showering and dressing because IDLs and ADLs tend to be lost in order. And you can use their current functional status to predict what they need now and what they will need soon-- very helpful.

Now, I got to point out an error. Where it says functional status, I have scrambled the Katz ADL and the Lawton Brody IDL scale. I don't know how. This may be-- well, never mind. But Katz should go with basic. And Lawton Brody should go with instrumental, OK?

What about the medical workup? Why are we doing it? We're not doing it to make a diagnosis of a specific cognitive disorder. We're doing it to make sure there isn't some medical disorder that is masquerading as a cognitive disorder. We're making sure we don't miss something. And it also reduces the likelihood that we will send somebody out with a bad label of, say, AD when in fact they had even maybe a treatable medical disorder.

The diagnostic studies are not going to point you to AD versus frontotemporal dementia versus dementia with Lewy bodies, et cetera. That's not what they're for. So just want to understand that and make sure that families and patients understand why you're doing this as well.

There's a good bit of evidence that this is a nonproductive work-up typically. But I'm not sure that the studies are done in the right population. If you're the front end of the health care system seeing the unprocessed raw patient material come through your door, I think you might turn up more problems by doing this kind of screening than would a specialist to seeing referral patients who have already been cleaned up.

Won't belabor these except to say these are some of the categories of medical disorders that commonly might impact cognition. The point of that last bullet is simply to say there are a lot of rare conditions that can do that. And when you begin to encounter what you conceive of as an atypical disorder-- I'm going to explain that-- then that's a trigger to refer to a specialist.

So this term atypical dementia or atypical cognitive disorder gets thrown around a lot. And it took me a while to acquire a sense of what it means. And actually, it's very simple, I think. Atypical means they're not like Alzheimer's disease usually is.

So Alzheimer's disease is kind of held up as the paradigm case of a dementing disorder. And anything that is not like Alzheimer's disease is then atypical. You can read the bullets of what the typical features of Alzheimer's disease are. Something that's not like that we would call atypical. And as I said, atypical serves as a trigger to you to refer to a specialist or to make sure to get imaging.

Just a point we ought to all be aware of is that Alzheimer's disease itself can be atypical. There are these variant forms, which I won't belabor. And probably the most common of them is the final bullet where Alzheimer's disease coexists with another neurodegenerative disorder, cerebral vascular disease, or dementia with Lewy bodies, which is going to make it look atypical.

So what blood tests to do-- I think you all know this. I won't go on and on. It's just that once you get to a point where you're thinking I need to investigate this further, you probably have reached that point in an atypical disorder where maybe referral is the more efficient approach.

There are some things patients will ask about. And some of them may even come into you with their 23andMe results and want to know what the significance of their APOE4 status is. I don't order that testing. If I'm confronted with it, I have developed a spiel. But that might be a trigger to refer.

What about neuroimaging? It's really about avoiding missing things. It's not about making common diagnoses. So the things you don't want to miss would be normal pressure hydrocephalus.

Having said that, I have to confess up here I just missed a case of it-- well, over the course of a couple of years, I missed a case of it. And I was persuaded that I had not made an error until I saw the guy after his shunt was placed. And it was incontrovertibly true that he was better, much to my chagrin. So anyway, you don't want to miss these things.

I sent another older fellow out only to find two days later that he's in the emergency room. Turned out he had a subdural hematoma. And the question was did he have it the day I saw him, or did it occur afterwards. So these are embarrassing. And that's why I do imaging. I don't want that.

You can use imaging to support a diagnosis of cerebrovascular dementia. It is less useful in making specific diagnoses, as I said. And when you get imaging, you will almost always encounter comments of the sort in the last bullet. There's small vessel ischemic disease phrased in a whole variety of creative ways. But that's what it amounts to, and diffuse cortical atrophy. These are when they are mild. These are probably universal in aging and don't have significance clinically speaking.

So who should get neuroimaging? Well, this is where that concept of atypical kicks in. If they have an atypical dementing order-- i.e., does not resemble classic Alzheimer's disease-- I think that person should get it. The better way to think of it, I believe, is to have as a default that you will get imaging unless they are so typical that you have no concern that they are anything but Alzheimer disease. And that would be the older patient with gradual onset slow progression beginning with memory and nothing about them that seems unusual. Those are the only folks I wouldn't image.

And there it helps to have a documented track record of a couple years of progression. If they're fresh in my clinic-- no one's even thought about cognitive disorder-- they're going to get imaging or at least get offered. What imaging to get-- MRI is preferred if it can be done. You do not need contrast. Some of the fancier scans are pursued by specialists typically.

And my experience with them is that nobody really knows quite how to interpret them. And you don't get much diagnostic confidence out of them. So I'm not a fan of FDG-PET, SPECTs, and functional MRIs. In my experience, I have not learned much by doing them. In fact, the guy who in whom I missed NPH had had a SPECT scan. And we were told it was cerebrovascular disease, so so much for that. These anecdotal experiences shape your behavior forever more.

Look through the meds looking for the ones that might cause cognitive and/or behavioral syndromes. I'm not going to belabor this list. It's a list you all have probably seen many times. Beers has been updated this year, so you can check that out. I would point to toward the bottom of the list, the fluoroquinolones. They are acquiring a bad reputation around town-- more and more bad stuff, including a black box warning not just for tendon rupture but for neurologic consequences, including CNS as well as peripheral.

Deprescribe when you can. When you identify a culprit med, go about trying to remove it. But do it systematically, meaning taper because what you don't want to do is taper too quickly or discontinue abruptly and then be confronted with the question, am I looking at withdrawal symptoms or is this a recurrence of the symptoms this medication was designed to treat. I don't know. So best to taper. And there's a great website, MedStopper.com, that will give you instructions on what the experts proposes appropriate tapering of virtually anything.

I have also learned that another way to avoid embarrassment is to offer a trial of a cholinesterase inhibitor. What you don't want is to send the patient out without having discussed it and have them come back, and the families looking accusingly at you and telling you that the PCP or some other consultant has recommended Aricept and the implication being why didn't you. So I offer trials of cholinesterase inhibitors usually with a lukewarm endorsement.

And the first two bullets there kind of capture it. It is that the likelihood of meaningful benefit is maybe 1 in 12 patients. So the number needed to treat is 12. And the likelihood of significant adverse effects is about the same, 1 in 12. I hope that it's a succinct and understandable way to present this to patients. And I do that.

I won't talk too much about the use of these in MCI except to say the literature says they don't help in MCI. They won't slow progression to Alzheimer's disease in those people who are destined to develop it. But I don't think the studies have been done well enough to be sure that's the case. So I would offer a cholinesterase inhibitor to somebody who had mild cognitive impairment, particularly if it was of the variety that has the highest likelihood of progressing onto Alzheimer's disease. And that's the amnestic or memory disordered subtype of MCI.

Which one to use? Again, it's all there. But I'm just going to say the vote hands down is for Aricept in virtually every respect, except for a definite edge in efficacy, which isn't evident, it is the easier drug to use. So that's my go-to drug and only when it fails, if we have somebody who's just avid to be on something, I might switch to the Rivastigmine patch or Exelon patch.

When there are behavioral symptoms, it helps to try to break it down into clusters of behaviors and identify the behavior that is most noxious, most disturbing to patient and caregiver and make that the target of treatment. Don't neglect the possibility that agitation, for example, is due to a medical disorder. Be nice to pick up constipation or urinary retention or a medication.

Always start by endorsing nonpharmacological interventions. You're going to get kind of blank looks and eye rolling from some families who thought they were already doing a pretty decent job and having no effect. If you think a medication is necessary, again, just as with deprescribing, prescribe cautiously, one medication at a time, adequate trial at a therapeutic dose before you abandon it. And make clear to families that this is nothing but a trial. I have no idea if this med's going to work, if it's going to cause more side effects than benefit, if we're going to have to backtrack and undo this work. Better to have set it ahead of time then to have to apologize after the fact.

So if you run into a situation where agitation is just intolerable to everyone concerned, some of the meds in the first bullet have been suggested as potentially helpful. Probably worth a trial, reasonably safe. Go to the antipsychotics when nothing else is working, and ideally, when psychotic symptoms, delusions, hallucinations are present. I think you have to inform patients and families of the black box warning about mortality on the antipsychotics. I do that regularly. And I'd say I get much reduced uptake of offers to prescribe after I say this could kill them in so many words.

Avoid the antipsychotics in Lewy body disease. You might try a cholinesterase inhibitor because of the evidence that Lewy body disease and Parkinson's for that matter are more acetylcholine deficient states than AD itself. And there is some evidence that the cholinesterase inhibitors boosting acetylcholine may benefit those two disorders more.

In terms of which drugs have some evidence for efficacy, olanzapine and risperidone probably have been studied the most. That doesn't mean they're best. I like aripiprazole-- Abilify. You look at its side effect profile, it looks relatively rather benign. It's just not studied as well.

Here's where you get into some of the nastiness constraining autonomy-- vocation. And the vocation that I run into most often that must be constrained is doctoring. And you have to be prepared to take stern measures if somebody who's treating patients and shouldn't be continues down that road. And you can notify the medical board. But so it goes for virtually everything.

And I'm really not running into as many situations where I'm concerned about the safety of the client or the well-being of the student. I'm more concerned about my patient and their reputation and encouraging them to get out before they leave under a cloud. Driving-- been talked about a lot by a lot of people. I list some of the reasons that might lead you to think that we better do something about it. But if you want a really good source, check the website-- the National Highway Traffic Safety Administration and the AGS put together a very comprehensive, readable source on driving.

Consultants-- you need to start building a good reliable referral network consisting of all the above. Again, you all know all of these. I'm just going to say a word about the Alzheimer's Disease Research Centers, of which there are, I don't know, 25 to 30 around the country. They are under a strict mandate from their funding source, the National Institutes of Aging, to focus on research.

And that means research candidates are the people they ought to be seeing. And as I said earlier, research candidates are people who might just respond to treatment if there were treatment. So your ADRC is not going to prioritize seeing your moderate to advanced demented patient. They are not funded to do that. They are much more interested in subtle cases.

But that's helpful because you have people who come in persuaded there's something wrong with them. You're not sure there is. You could refer them to the ADRC to get a very thorough multidisciplinary work-up and come out with a better sense of what's going on.

I try to help families avoid misinformation and point them to good information. The sources I list here, I think, are very solid, reliable, up-to-date sources. The NIA has this Alzheimer's Disease Education and Referral Center that's pretty excellent. The Alzheimer's Association's terrific.

In terms of resources for caregivers, you can see what's there. If you haven't looked recently, check out the UPMC Aging Institute website-- pretty strong. And if they want to participate in research-- some people are altruistic, but more people are interested in getting access to an experimental drug before it comes on market-- direct them to clinical trials or the ADRCs.

Having said all that, you're probably thinking, yeah, he's right. There's no point doing this. Too much work associated with it. Why would I start? So I'm going to propose something that I haven't myself done. That's not a smart thing to do.

But just for your interest, there is a new CPT code out there Medicare's approved, which is specifically targeted at paying you to do cognitive assessments, OK? Now, what would you have to do? Well, you're going to have to dedicate an hour to the visit. You're going to carve out an hour of time. Medicare expects 50 minutes of face-to-face time for this.

You're going to have to structure your data collection. I think an analogous situation is the Annual Wellness Visit of Medicare where you probably have a template and instruments that you use. Same thing would apply here. And you must have a competent informant. Medicare and other payers will not pay you to do this if you don't. You cannot wing it on the basis of what the patient tells you.

The reimbursement's pretty decent. And I called around to make sure that, in fact, some of the local payers were paying. And they wouldn't acknowledge that they were paying. But they said if we did pay, this is how much we would pay.

AUDIENCE: [LAUGHTER]

ERIC RODRIGUEZ: [CHUCKLING] Yeah. If you are interested in this, and I think it should be of interest to some of you, check the Alzheimer's Association website for this excellent rundown of exactly what's needed and then a list of resources that you can use in structuring your data collection. They point you to some very efficient, accepted, validated tools that you could use.

And this is just a list of what needs to be done. So the point is it's a daunting list, except that you don't have to do it all at the time of the visit. Some of it can be done by properly trained clinical staff prior to your time with the patient. A lot of it can be done by the required informant using the tools you provide them. By the time you offload work to your staff and to the family, you don't have as much to do.

And you get the good stuff. You review what's been collected. And you synthesize it. So if nothing else, going through this process would teach you and me a whole heck of a lot about what goes into adequately assessing a cognitive disorder.

Another point, and this I have been doing, OK? So is it fiscally feasible? Here's another approach. Generally, when a patient comes to me with cognitive disorders, it's because they've been thrashing around somewhere else, not getting adequately treated. But they're accruing a massive database in the process.

I can spend 30 minutes or more reviewing that database and documenting what I'm finding and collect payment for it-- $150. Now we're talking about $400 for the combined CBT codes. This 99358 has to be done not on the day of the visit for the evaluation but either before or after. You must document what you found, OK?

It certainly helps you walk in the room if you do it ahead of time, way ahead of the game. You're not playing catch up and trying to learn from the patient and the family. You already know what's in the record.

But let me point out how that might help you do this in a feasible time frame. What I do is couple days beforehand-- don't do this 99358 two weeks ahead of time because half your patients are going to cancel. And you will have done all that work for nothing. Do it a couple days ahead of time.

And start writing your note in a, if you know Epic, a telephone encounter as you collect that data. And structure it. Put it in some kind of order. The day of the visit, you copy and paste that telephone and counter note of the data you got on review into your visit note for the day. And you're already halfway there, typically.

As I said earlier, you can offload some of the work to the caregiver by having them complete questionnaires. And in fact, that's expected for billing the 99483 or 38-- yeah. During the history taking, here's another thing I do is I have taken to where it is applicable reviewing the medication list, asking about adherence and difficulties with adherence and side effects, and in conjunction with that, asking about the medical problem that medication is designed to treat.

So we're talking about glimepiride-- are you taking it, is it causing any problems, how have your blood sugars been, you having any more problems with the numbness in your feet, et cetera. So I merge the medication review and the medical history. And it turns out for me, at least, to be a very efficient way to do things. It's a very structured approach. And it will meet, I'm persuaded, although I haven't tried it, it would meet criteria of the payers.

And in terms of the neurologic exam, half of it is just your observations made during the course of the visit. You're watching for tremor. You're watching for focal neurologic signs, gait and balance disorders. You've done a lot of the neurologic exam if you had your eyes open before you ever laid hands on the patient.

So final pitch here is that I have found-- I'm just telling you-- I'm one person-- who has found this to be a very gratifying, satisfying thing to do. I kind of have wrapped my brain around it. I feel I've developed expertise in the area. I feel I'm delivering benefit to my patients. I think the quality of my care has improved because I'm not neglecting that canary in the mine of a cognitive change that might signal a medical illness. I am gearing now my goals of care or I should say the patient's goals of care more and more to their cognitive and functional status. So this is truly personalized care.

And if there ever is a drug that's going to work to help these people, you will be head and shoulders above the rest of the crowd when it comes to doing the assessments necessary. And if nothing else about this appeals to you, think ecologically. You will be occupying an underpopulated niche in the health care system. There are just not people out there doing it. So again, I commend it to you. Do with it what you will. But think about it. Thank you.

AUDIENCE: [APPLAUSE]