

**The Lewin Group**  
**Safe and Effective Use of Medications in Older Adults**  
**April 18, 2018**  
**12:00 p.m. EDT**

**Caroline Loeser:** Thank you. My name is Caroline Loeser. I'm with the Lewin Group. Welcome to the webinar, ***Safe and Effective Use of Medications in Older Adults***. This is the first session of our 2018 Geriatric-Competent Care webinar series.

Today's session will include a 60-minute presenter-led discussion, followed up with 30 minutes for discussion among the presenters and participants. This session will be recorded, and a video replay and a copy of today's slides will be available at our website, [www.resourcesforintegratedcare.com](http://www.resourcesforintegratedcare.com).

The audio portion of the presentation will automatically stream through your computer. We also have phone lines for this presentation. To access the phone number, you can click the black Phone widget at the bottom of your screen.

Continuing Medical Education and Continuing Education Credits are available at no additional cost to participants. AGS is accredited by ACCME to provide continuing medical education for physicians and by NASW to provide continuing education for social workers. CMS is also accredited by IACET to issue CEUs.

So you'll see on this slide that we've laid out the various continuing education credit options. If you're a social worker, you could obtain continuing education credit through NASW if you complete the pre-test at the beginning of the webinar and complete the post-test.

If you're a physician, you could obtain CMEs through AGS if you complete the pre-test at the beginning of the webinar and complete the post-test as well. And CMS is also offering CEUs for other individuals looking to obtain credit for attending this webinar. In order to obtain these credits, you must complete the post-test through CMS's Learning Management System.

Additional guidance about obtaining credits and accessing the links to the pre-test and post-test can be found within the Continuing Education Credit Guide in the Resource list on the left side of your screen or at the Resources for Integrated Care website.

This webinar is supported through the Medicare-Medicaid Coordination Office at the Centers for Medicare and Medicaid Services. MMCO is developing technical assistance and actionable tools based on successful innovations in care models such as this webinar series. To learn more about efforts and resources, please visit our website or follow us on Twitter for more details. Our Twitter handle is @integrate\_care.

So at this time, I'd like to introduce our moderator. Carol Regan is a Senior Adviser to Community Catalyst Center for Consumer Engagement in Health Innovation and has over 30 years of experience with national and state-based public policy and advocacy organizations. Carol?

**Carol Regan:** Thank you, Caroline, and thank you, Medicare-Medicaid Coordination Office and the Lewin Group for continuing to sponsor these incredibly rich, important series. Community Catalyst has been very engaged for several years now with these partners and the American Geriatric Society in promoting and exploring good models of care for older adults, and particularly dual eligibles and those with complex care needs. So we're really delighted to be supporting this and involved in this effort.

So let me introduce the distinguished faculty and then we'll turn it over to them soon. So you can see on your screen we've got four speakers today. Todd Semla has a Master's and Doctorate of Pharmacy. He's a National PBM Clinical Pharmacy Program Manager, Mental Health & Geriatrics for the U.S. Department of Veterans Affairs, and an Associate Professor for the Departments of Medicine, Psychiatry, and Behavioral Health Services at Northwestern University's Feinberg School of Medicine.

He's a Fellow, a past President, and a Board Chair of the American Geriatric Society. And since 2009, Dr. Semla has Co-Chaired AGS Beers Criteria Panel, which produced the 2012 and 2015 updated criteria for inappropriate medication use in older adults. And you'll hear more from our speakers about the Beers Criteria in today's presentation.

The next speaker is Dr. Thomas von Sternberg, who is a Senior Medical Director of Community Senior Care, Home Care, Hospice, Government Programs, and Care Management at HealthPartners, which is a Minnesota based health plan serving nearly a million members, including 50,000 Medicare participants.

He's board certified in geriatrics and family medicine. In his role as a Senior Medical Director, Dr. von Sternberg develops and coordinates programs for the geriatric population with emphasis on frail, complex elders, Medicare Advantage, and the dual eligible population.

He's involved in coordinating care of the Care Systems Home Care, Assisted Living, and Post-Acute Transitional Care Network patients. He oversees the home-based medicine service and supervises the home-care agencies within HealthPartners and services related to hospice, palliative care, and end of life care.

He's a member of the faculty of geriatrics at the University of Minnesota Medical School, a Medical Director for a Long-Term Care facility, and a member of the Minnesota Nursing Home Medical Directors. Finally, Dr. von Sternberg was the past Medical Director of Seniors Plus, which is a social HMO.

Our next speaker will be Donna Fick. Donna is a distinguished professor at the Penn State University's College of Nursing, an endowed Professor of Nursing and Director of the Penn State Center for Geriatric Nursing Excellence.

She's a member of the interdisciplinary panel for AGS's Beers Criteria and serves on the American Geriatric Society Board. She currently serves at the National Academy of Medicine, their forum on Aging and Disability and Independence.

Dr. Fick is an internationally recognized as a leading expert in geriatrics and she's been the editor of the Journal of the Geriatric Nursing and is board certified as Gerontological Clinical Nurse Specialist and a Fellow at the American Academy of Nursing.

Then finally, we're pleased to have Marisilis Tejeda. She's a Senior Health Coach with City Health Works in New York City, where she started in 2013. Marisilis was born and raised in Santo Domingo, Dominican Republic and specializes in diabetes, asthma, hypertension, and congestive heart failure health coaching.

She works one-on-one with her clients in their homes or in the community and teaches them to set and meet personal health goals. She identifies and helps clients address social needs, and accompanies clients to their doctors' appointments and helps them navigate the medical system. Marisilis attended LaGuardia Community College for a Community Health Worker certificate.

So you can see we have a rich array of speakers today. At this time, I will turn it over to Todd Semla. Todd?

**Todd Semla:** Thank you very much. Good morning or good afternoon, everyone, depending on where you are. These are my disclosures. I will only vocalize one, and that is that the views of the presentation are my own and do not necessarily reflect those of the US Department of Veteran Affairs or US Government.

We are concerned about patients who're dual eligible for Medicare and Medicaid. They account for having about 25% higher rate of chronic conditions than beneficiaries who are not dually eligible.

They also tend to use a variety of medications and have a higher Medicare Part D prescription drug care than Medicare-only beneficiaries. So this is a particularly important group to focus on and talk about.

And this shows many of the ways dual eligibles are different from non-dual eligible Medicare beneficiaries. They tend to have twice or higher the rate of being cognitively or mentally impaired, they have three or more chronic conditions more often. They tend to rate their self as being in fair or poor health more commonly. They require more assistance with one or more activities of daily living. And they're also more likely to be a resident of a long-term care facility.

I like to show this slide because it shows the trend that we've had in the United States in looking at medication use, particularly prescription drug use by persons 65 years and older. And if we go back to 1968, you'll see that approximately about 25% of the population was 65 years of age and older. And they purchased around 10% of all the prescription drugs sold each year.

If we move ahead to 1981, we see that the US population was about 31% senior, and they accounted for around 12% of prescription drugs sold. And if we fast forward to 2040, it's anticipated that the US population will be somewhere around 50% 65 and older, but they will purchase -- excuse me, will be about 25%, but they will purchase around 50% of all prescription

medications. As the population ages, so does their percentage of prescription drugs purchased in the US.

There are a number of factors that influence medication use. There are individual characteristics, who we are. If we're a man or a woman. Women tend to use more medications than men. They're better at going to the doctor and seeking help than men who tend to be more stoic.

There're also physiologic changes that separate us from one another such as how our kidneys function and drugs we would need to avoid or not use. So that can affect which medications we get. The disease states we have as we've already noted the number of chronic conditions goes up as we increase with age. Those will also dictate an increase in use of medications.

And then there are sole conditions that require treatment oftentimes with one or more medications. Diabetes, hypertension, and heart failure all could be managed with one, two, three, or even four medications, depending on the severity and the goals of trying to treat.

There are psychosocial attributes, and particularly in the US, we have philosophy of a pill for every ill. We tend to less likely to want to go to psychotherapy, for example, for depression and anxiety. Would rather take medication for that.

Physicians also influence a great deal the medications that're used in the United States or prescribed to individual patients. And in fact, physician-to-physician communication is the number one influence. It's not the drug company representative. They're number two, but it's actually the peer-to-peer contact that physicians have.

Advertising is also something that is extremely important in terms of how we're influenced by which medications we take. This often -- has increased greatly since the direct-to-consumer advertising has taken place in the US in the past 15 or 20 years. And in fact, the pharmaceutical industry has shifted its resources more towards direct-to-consumer advertising and less to actual salespersons out in the hospitals and doctors' offices.

Okay, you can advance it. There we go. So this is a couple examples of what we call prescribing cascades, which is something that we teach physicians, pharmacists, nurses, anyone working with older adults and their medication to be on the lookout for.

And it's often referred to starting one drug to treat the side effects of another drug. This is a form of polypharmacy. So you could say that you had an older gentleman who has experienced some back pain. Doing some work around the house and he has pulled a muscle. So he starts to take over the counter or ibuprofen, Motrin.

Now Motrin has renal effects. Kidney effects in older adults and it can result in increase in blood pressure an average of about 5 millimeters of systolic blood pressure per person. So they're taking this and they see their physician who's kind of been watching their blood pressure, because they're concerned that they may become hypertensive, and they notice that they are in fact hypertensive. And they prescribe them an anti-hypertensive, Amlodipine.

Amlodipine has a side effect that will cause lower extremity edema, and that's also noted the next time the person comes back, because they say, "Look, doc, my blood pressure's better, but my legs are all swollen."

So they give them a diuretic, Furosemide, which gives the gentleman urinary frequency, and he has an enlarged prostate, but it'd been manageable, but now he's given a medication to treat his enlarged prostate.

So instead of perhaps being on no medications if he had gotten limited treatment or something else besides ibuprofen, he's now on three different medications. And even if he stops the ibuprofen, it's unlikely the other two would be or three would be stopped.

So that's what we call a prescribing cascade. Another example that we're always concerned about is a patient who's taking medications that have anticholinergic effects. We'll talk a lot about this later in the presentation, but these medications can cause cognitive impairment or delirium. And this could be misdiagnosed as someone having dementia or result in prescribing an anti-dementia medication such as donepezil, which is a cholinesterase inhibitor. So again, a patient's on one medication, and it leads to a side effect. And they get another medication. And it's likely to be a chronic medication.

So what're the consequences of inappropriate use of medication by older adults other than leading to more medication, as we've shown? Well it's been noted that this increases the likelihood of death, mortality, morbidity, such as hospitalization, or seeing more office visits. Perhaps falls and fractures if the medication's inappropriate and it results to that. And other adverse drug events such as delirium as I've mentioned.

It increases healthcare costs and utilization because of these events need to be treated. There's also an increasing use in the oldest and most vulnerable adults that we see inappropriate medications being prescribed.

And one of the concerns is that the more medications you are on, the more likely you are to be on one of these medications we consider to be inappropriate. So that's always a red flag looking at the number of medications a patient's on and trying to see if any of them are inappropriate.

And even though medication, inappropriate medication use is highly common, it is preventable with rigorous monitoring of the patient's regimen and determining what in fact that they need.

The latest statistics we have on inappropriate prescribing in the community is about 41% of elderly that live in the community are prescribed at least one inappropriate medication using the 2012 Beers Criteria.

NSAIDS are non-steroidal anti-inflammatory drugs like Motrin or ibuprofen I mentioned earlier accounted for 10% of this inappropriate use. And then benzodiazepines, which would be drugs like Valium, accounted for another 9%.

Drug-drug interactions are also things we're particularly concerned about, and I'm going to point out to a couple of them that appear in the most recent version of the AGS Beers Criteria. And the first is that the use of three or more drugs with central nervous system effects.

So this is sort of referring to CNS polypharmacy. And it could include medications such as the antidepressants, the SSRIs, selective serotonin reuptake inhibitors, such as Prozac and Paxil or Zoloft, Celexa. Tricyclic antidepressants, some of the older antidepressants, the use of an antipsychotic, benzodiazepines, and then what we call the Z-drugs, which tend to be other non-benzodiazepine medications used for treatment of insomnia, (technical difficulty) our example. And then also a combination with opioids.

So any combination of any three of these are a concern that because it increased the risk for falls in older adults. In many of these drugs, even by themselves are linked with falls but combining them with two or more other CNS active agents further increases that risk for falls.

And then prescribing multiple drugs with anticholinergic activity, and this leads to increased risk for impaired cognition or delirium, as I discussed in the other example. We'll show you a list here on the next slide of medications that have anticholinergic activity.

And this is something that I point out, because these medications are available over the counter. A lot of times the anticholinergic effect is not the intended benefit of the medication, but it's a side effect.

So it's kind of hidden in a lot of these medications. So for example, the drug meclizine, which is Antivert, which is sold over the counter to treat vertigo, is an anti-emetic. Many of our antispasmodics that're used to treat urinary incontinence, such as oxybutynin is another example.

These medications are found in both prescription and non-prescription, over-the-counter cold and allergy drugs such as hydroxyzine and diphenhydramine, and Benadryl, which is also found in sleep aids. And then skeletal muscle relaxants and some of our tricyclic antidepressants are also strongly anticholinergic.

So it's a wide variety of types of medications that have this effect. And they can be rather insidious and creep up on people and put them at risk for cognitive changes that people don't often attribute to the medication.

So older adults are vulnerable to these because they have a high probability to exposure. They have greater sensitivity due to some of the physiologic changes. And if they have pre-existing cognitive impairment, they're at much greater risk for further worsening of that or even delirium.

Well what can be done? Well we've tried some regulatory mandates, particularly OBRA '87, which goes back to nursing home regulations which really tried to disallow the use of antipsychotics and other medications to treat some of the behaviors in patients with dementia that they were shown to be harmful and really not beneficial. Those regulations have been revised, but they are still there in different format.

The AGS Beers Criteria I've mentioned several times. And this is something that's used by CMS and insurers to reduce inappropriate prescribing. Often initiating a prior authorization if you want to use one of these medications in a patient over 65.

Medication reconciliation is another thing that's mandated by JCAHO. It's very useful in transitions of care. Drug regimen review and cross- check. Looking at patient's medication lists. Having them show you everything that they have in their house. Either in person or by a list of medications and cross-checking that with what they're supposed to be taking in the chart.

And then another useful item that can help is to actually chart out all the medications and all the different times a day the person has to take their medications. Showing it to their providers, because oftentimes these regimens can be simplified by reducing medications, and that can be very helpful.

So a little more about the AGS Beers Criteria. It's a free resource. You can find it at the weblink at the bottom of the page, geriatricscareonline.org. There's a lot of information on those pages such as how to use the criteria, what they actually mean. There's an alternative medication list for some of the Beers medications. There's pocket card. An app.

And then there's also public education resources that you can give to patients or their caregivers for things that they should know about medications. Keeping a medication diary. Tips for medication safety and other things that they should be aware of. So there's a very valuable resource for them at geriatricscareonline.org.

Another criteria that was developed in Ireland and is used in Europe but it's made its way into the United States that some people like are the STOPP/START criteria. They're very similar to Beers in terms of the medications that should be stopped or avoided -- as we say with the Beers criteria -- but they also have medication that should be started. In other words, they reflect the under prescribed medications that are often not given to older adults because of concerns or oversight. So it's a very complementary list to the Beers criteria.

Deprescribing is something else that's very helpful. It's a big buzzword right now in targeting medications that don't have an indication or are no longer needed. They're not working. That're duplicate or are not being taken or adhered to.

And these are events where deprescribing could be triggered. Care transitions, annual review of medications, before a new one is started, when there's a new problem that's decided this is a drug-related problem as opposed to something else

And it's very important when you're deprescribing, to educate patients and their caregivers about what's going on so they have instructions. They know to monitor. They don't freak out if they have a withdrawal phenomenon or their condition is exacerbated. So what to expect.

These are medications that're prime for deprescribing. Many of these are on the Beers list we've talked about. Others are medications who you have to look at what the patient's goals are perhaps as they get later on in life. Their goals in terms of what they want and the benefit of the

medication may have diminished or their disease has advanced and the medication is no longer really being helpful. So those things should be -- these are examples of those medications.

The deprescribing.org, it's out of the University of Toronto, I believe. And it's all free resources. There's wonderful algorithms for providers and there's also brochures and things for individuals to get more involved.

And then screening and medication review is something that should be done regularly. At least annually, when starting a new medication, or changing a dose. You can do it more often. But to do a medication review. And this is often done in collaboration or by the pharmacist to look for drug-drug interactions. Identify all the medications the patient's taking. And any medication problems that the patient's having, such as adherence.

And this is a summary slide that shows how deprescribing, adverse events and drugs to avoid all kind of overlapping. This is all kind of continuum in my mind. We see the same things popping up over and over again. So these are the things we really want to be focusing on. And these are the tool and ways we can focus on them.

And then finally the seven features of unnecessary/excessive drug use that I like people to kind of walk around with in their head. If there's no apparent indication for the medication, it's got to be questioned.

If it's a duplicate medication, has the same effects as another medication, why are they both being used? Does it interact with other medications, which may decrease their effectiveness or enhance a side effect that's dangerous to the patient?

Is the medication really contraindicated that person? Is the dosage inappropriate? Too low? Too high? Is it one drug to treat the adverse effects of another drug? And if you stop this medication, is there likely to be improvement following discontinuation? That's a really good sign that the medication probably is being harmful and not helpful.

I always like to close with this quote from 1990 from a mentor of mine, Rod Stewart, who said, "The trend of multiple drug use by elderly people will likely increase in the future as a result of an increasing burden of chronic disease and success of researchers who develop new drugs."

He was very correct. I could reissue this statement in 2018 and it would be correct in another 30 years I'm afraid. So with that, I want to thank you for your attention, and I will turn the presentation over to Dr. Tom von Sternberg, who's going to talk more about medication use by older adults. Thank you.

**Thomas von Sternberg:** Thank you, Todd. So we really want to help this presentation relate more to your roles as care managers, care coordinators, and health plan individuals who are trying to get their hands on how to look at patients at risk for these issues. And then again adverse drug reactions, adverse drug episodes again are what we're trying to avoid.

There is really no better way to do that than to look at a couple of case examples. And so we'll talk about a couple of patients, both in my presentation and in Donna's coming next. But Mrs. Smith, a patient that you all may well be familiar with. She's about 87 years old. She's been falling. She's complaining of joint pain. She's got some memory issues. She's on a good day already impaired with her self-care and her ADLs.

She had an episode of rectal bleeding a couple of days ago. Didn't tell anybody about it. She was in the ER just last month because she fell and had a laceration. Her blood thinning levels were outside the recommended range. And then she was also given another drug for a new condition that also had some impact.

Clinicians that manage complex, frailer elders are pretty used to seeing this view of a patient. This is the conditions, the ongoing chronic conditions, that Mrs. Smith is trying to manage with her team of doctors.

I also would point out as we're talking about this work. This is absolutely imperative that we know there are multiple clinicians involved in helping manage complex frail seniors, especially our dual eligible population.

Specialists, primary care, mental health providers, and as well, the number of clinicians involved during transitions. Hospital medical physicians, transitional care physicians, et cetera. A list of 20 chronic conditions of which each of them is substantial on its own.

As we already mentioned, each of them have an indication for a potentially effective medication but also a medication that has potential both side effects and drug-drug interactions. The role of us in this space in care coordination, care management, and looking at populations is, well, boy. I can't know details about each of these drugs.

But as we just heard, it's both the class of drugs and those that have the greatest risk to try and have us feature and be paying attention to. And so from that perspective, the idea of, boy, when we're at 20 medications including prescription and non-prescription medications, it really does kind of give that example of this is an individual in a situation that does really deserve and would benefit from that assessment.

So the idea of the challenge to that primary care physician, his or her specialist colleagues, and our hospital colleagues. It is this individual patient has themselves 20 chronic conditions. Therefore medications then simply multiply.

The difference in how the body responds to medications changes over age. Another important perspective to have as you become more familiar with the world of geriatric medicine and caring for frail elders. There is really not strong evidence for the kinds of results and impact that medications have been shown to have in a frail, older population.

So much of the decision making about choice of treatment is not based on evidence for that 85 year old but it is presumed to have similar impact as it was studied on a 60 year old. We also

absolutely must remember that the capacity for any individual to comply, understand, remember, and take that full array of medications simply is not possible.

And even with Medicare Part D coverage, and even in a dual eligible population that has their medications paid for, costs and burden continue to be a struggle for patients to get their medications in a timely fashion and to even understand which medications are even due for refills. And always supplements and over-the-counter medications recommended by clinicians but also that patients and families on their own take have to be considered.

Some statistics that reinforce what you already heard. You know again this is simply where the action is for polypharmacy and multiple medications. And that massive portions of the population that we are coordinating that you're helping to care for are in this space of multiple medications with over-the-counter use and the idea that there're additional supplements out there that we need to be aware of. And this is evidence from 2010, but again if it was studied more recently we would see the same numbers.

Definition for the day. Polypharmacy is five or more regularly prescribed medications. And that by direct result that leads to potential for unnecessary medications and that therefore the harm and the risk is there. So I think again we use five as a cutoff. People can have issues with medications that're less than five total. But still this is part of our framework that we try to emphasize.

The fact that such a majority of our patients are on these larger arrays of medications and results in what we talked about, the one emphasis here I think is quality of life and simply burden.

This issue of quality of life and burden again fatigue, constipation, drowsiness, poor quality sleep, difficulty with self-care, lower energy, bowel and bladder issues, and cognition. These are the kind of things we'd like to lessen for our frail elders.

So again the idea, no surprise, massive percentages of this population are experiencing adverse events because of medication use. Emergency room trips, hospitalizations. I think this last dot point is quite sobering. 30% or more of elderly patients who're admitted to the hospital are there because of the contribution of an adverse drug event.

So as we've shown in our previous, kind of that purple slide, if you remember, those classes of drugs, again no surprise the reoccurring theme is there are higher risk medications than others. And then our role from a care coordination perspective and that population view again is not to become experts in anticoagulations but know that those're the medications we want to emphasize to get patients exposed to drug reviews, pharmacy support, and attention to the risk of transitions where those medications can be changed.

On the right side here though, very important. The idea of the most dangerous medications. These three clearly have the highest risk. Warfarin being an anticoagulation drug used for stroke prevention is extremely challenging to use properly and safely.

Insulin for diabetes. Commonly used for decades. But for frail elders can have significant consequence of low sugar and consequences like that. And then Digoxin, a medication used for heart rhythm difficulties. Again high risk for side effects although can be effective to help patients with heart conditions.

So Mrs. Smith. Is she at risk for adverse drug events? And everybody has already made their decision by saying yes. She's got more than six chronic diseases. She's on massive different medications. She indeed is struggling with renal function being diminished. Her nutrition more than likely is suffering. And she's had previous adverse drug events already.

Why is she at risk? Because she is navigating her eighth and ninth decade, accumulating all of these chronic conditions with well-intended clinicians offering up potential treatments for each of those conditions. And again multiple prescribers in that same vein.

I think again one of our strategies has to be to consider how we can have clinicians talk to each other more in the role of care coordination and care management can really help emphasize the fact of we have to get some better cooperation amongst a variety of people involved in these prescribing arenas.

Physiologic changes are important. The changes that occur with aging about diminished capacity and tolerance to medications. Decreased reserve capacity means the tolerance to any end organ that's being treated simply doesn't have the reserve to put up with stresses of either medication or the illness itself.

Our body changes. Our fat, water, and muscle distribution as we age. That affects how medications impact our bodies. Our brains become much more sensitive. Conditions of heart, kidney, and nerve, again those conditions lessen the tolerance to the potential side effects of other classes of medications not being used for those conditions.

And that the idea that the same amount of drug in a frail elder individual will have a significantly greater effect than it will in a younger individual. This concept you've heard before, starting low and going slow. And again reviewing that patient's list of medications. Are they on the lowest dose possible? And from the deprescribing perspective, as we've already heard, do they really need to be on that medication?

We pay a little bit more particular attention to the aging kidney, because so many of the medications we use are metabolized, and filtered, and excreted by the kidney. And so that with normal aging slows down. And that impaired kidney function because of conditions like diabetes also results in more challenge.

And so again longer therapeutic effect and stronger side effects will occur. So with this background and some of the things you've been hearing again and again, Donna is going to take us through a bit of strategies of how to be more patient and family centered as we try to engage with impacting the challenge we have with our frail elders.

**Donna Fick:** Thank you, Dr. von Sternberg. That was super. So like my colleagues, Todd and Tom, I'm giving you an evidence-based approach, and you'll be able to get some of these citations I think if you need them.

But I really want to give you one that's based in practice in using real older adult stories to illustrate issues about taking medications, medication problems, and how we might intervene. So Mrs. Ryan was a pretty common dually eligible patient that I worked with in California as a Geriatric Clinical Nurse Specialist and a Care Manager.

She was an 82-year-old retired baker with COPD and an 8th grade education who was recently hospitalized with pneumonia, and she had a history of cognitive impairment, is on 13 medications, by the way prescribed by multiple different providers.

And when Nurse Donna comes out to see her in her home today, her mini mental state exam is 22 out over 30. So she tells Nurse Donna that she did not refill her inhaler because she couldn't afford the co-pay and she stopped taking her antidepressant.

Her son lives with her and he is unemployed and does not seem to be helping with her care. And she's not able to tell Donna what the medications she takes are used for and is not sure what she should be taking since she came home from the hospital, as many of you know, she was started on multiple new medications. And there was little time when they suddenly decided to discharge her.

So let's build on our thinking about Mrs. Ryan. Again going back little bit to the evidence. And we will come back to Mrs. Ryan. So these are like some of the personal and demographic issues that put older adults at risk for not taking their medications properly and for having medication problems.

I will say that I'm going to talk a lot about personal factors, but what you will see is it's not just person factors. And I think both Todd and Tom alluded to this. It's really health system factors. It's provider communication factors. Factors to do with how medications are dispensed and taken during the day. So there's these multiple system factors that interact.

Most of these factors you see are based on a systematic review by RAND Health and a systematic review by Gallaudet on 2011. And most of these you will see in our actual case. So this one is about mental state. You'll see that many of the factors with mental state interact.

We heard Todd talk about how the dually eligible have over twice the cognitive impairment. And several studies have found that forgetfulness and memory complaints are one of the biggest barriers for older adults taking their medication properly. Particularly if they don't have assistance of a caregiver.

It's important, of course, to understand that these factors interact with the degree of assistance. So you can't just discuss mental status though that is critical. But you also have to look at who is helping them with their medication and what is their system? And another study found that a

mini mental state exam, less than 24 is associated with problems taking medication. And remember our case, Mrs. Ryan had a MMSC of 22.

So older adults also have physical factors that was found in that review by RAND and the Gallaudet. And many of these physical factors really relate not just to physical conditions and number of comorbidities. And I think you saw that slide which even wowed me from Dr. von Sternberg that showed 20 different conditions. And again, that's not uncommon. We also see again that this is more common in dually eligible.

So parsing out the physical factors can be more difficult and complex, but try to keep in mind knowing what their conditions are, but more importantly, knowing how these conditions impact their function. Their physical function.

This slide may be one of the most important ones I show in terms of risk factors for not taking medications properly. And why I say that is because most of these are modifiable, or able to be changed, or supported with proper assistance and proper communications.

Many of these are likely influenced by the relationship they have with their provider or with their health coach, which you'll hear about more later. So again, these can be overcome. Or their case manager as many of you on this call are.

So for instance just a couple examples. Several studies have found that patients who gave lower priority to discussing their hypertension meds with their provider had more problems with them. Patients who didn't see their condition, whether it was diabetes or hypertension, as a threat had more problems taking medications properly. So it's not just giving them the medication. It's helping them understand about their condition. And we'll talk more about this later, but really understanding what matters, and what their beliefs are, and attitudes toward their chronic conditions and their medication use.

Here are a lot of other factors really which I kind of threw together, but these really again are a combination of a few personal factors such as living alone, whether or not they have a caregiver support, but a lot of these really are provider issues, communication issues, and system issues.

So what is the complexity of the medication pill delivery? Again these are things that can be addressed and we'll talk about that in a moment. And a major underlying theme of many of these is communication.

We saw many of these in the case of Mrs. Ryan. That she had a care giver but it wasn't clear how much support she was actually getting from that caregiver. And what else? Low socioeconomic status. And hospitalization in the past six months. So this issue of the transitions are critically important. Critically important.

So what do we do about this? Again I'll say that, and if you remember nothing else from my talk, if we don't start from understanding what matters, it doesn't sort of matter what we do. Pulling everything that you've learned together so far in terms of what medications put people at most risk, what conditions put them at most risk. What personal factors.

But asking individuals what matters. And understanding their beliefs and values around not just medication, not just prescribed medication use but also why are they taking that over-the-counter medication? Why are they taking that herbal medication? Again understanding what matters to them. What their biggest concerns are. And what kind of things are keeping them up at night.

It's very very critical in older adults to assess their mental status. You cannot know how much support they need or if they could take the medications correctly if they don't -- my expertise is actually delirium and dementia. And I'll say that the brain, though it's one of the most important organs, sometimes we're embarrassed to assess it. So don't apologize for assessing mental status. Assess it.

Also vision and hearing, which of course interact with the issues with cognitive impairment. Know how medications accessed and paid for. Again the case in Mrs. Ryan. You would think, and this was 20 years ago, but you would've thought, "Okay. You don't have \$8 to pay for your co-pay?" But for many of the dually eligible, that's actually a reality.

Simplified instructions. Several studies have actually showed it's not just health literacy, per se, in terms of reading, but it's also many older adults or people with cognitive impairment have issues with numbers. So using images rather than numbers. Also technology.

This is an example of a person-centered approach. And I won't say a lot about this except to say that we use these at our health system. So if you are deprescribing, you are trying to take people off unnecessary medications.

You also have to say, "Okay. If I'm going to take you off this sleep medication, then let's work with you for sleep hygiene." Figuring out, "Are you going to bed at 8:00 o'clock and waking up at 2:00 in the morning?"

Well if you look at sleep architecture, that might actually be normal. We use this in particularly with persons with dementia or cognitive impairment. So as they wake up at 2:00 in the morning and they're agitated, the nurse says, "Okay. I know what kind of things make you feel relaxed. I know what kind of things make you scared. I know the family members you're most close to."

This can be made on a PowerPoint slide. Very, very simply. And you can print them out. And it says here that it's a form, but the ones that we use are actually a poster. And the other thing is the older adult can take it from setting to setting. So they can take it from the hospital to the assisted living to the skilled nursing facility or back to home.

This is just some examples of technology that you can go back and look at later, but I will say I think that the use of technology, particularly voice assisted digital technology to remind older adults to take their medications is very important.

A recent study by [Chris Lasinsky], this is a critically important study for nurses where she looked at individuals who were getting psychoactive medications for delirium. And she showed them when they would get agitated, she showed them a 1-minute video of family members

reassuring them and calming them down. And she was able to significantly decrease their agitation scores. So using technology to avoid inappropriate medications.

So back to the case of Mrs. Ryan. These are just an example of a many things that were actually done for Mrs. Ryan that we sort of -- I hope this sort of brings together a lot that we've talked about.

The nurse conducts a home visit. Addresses her mental status and memory issues. And she talks with Mrs. R about what she knows. She actually has her look at each medication. The other thing is, if she's opening -- can she even open the bottle of medication? Can she actually see the label on the medication? And does she understand why she's taking them? Is this something that she was prescribed when she was 45 years old and she never questioned now at 75 and 85 whether it's still helping her?

A social worker to help out with very clear issues with Mrs. Ryan in terms of paying for medications and also to look into other community aging resources such as transportation to get to her medications, home aides, and financial assistance.

The pharmacists, again, can assist with a deprescribing plan. As Todd explained and gave information about, and that's a great website, [deprescribing.org](http://deprescribing.org), you can actually print out papers there to use with patients and consumers.

And then the physician could consider a referral for medication therapy management, which is covered by Medicare Part D to do some of these things such as a medication reconciliation and developing a schedule that decreases the complexity of her 13 medications.

And then very importantly the care manager who really pulls all of this together, assists with understanding the chronic condition in the context of all of this, and might also help offer some non-drug alternatives.

I'll just say you can go back to this slide later. I'll say two things of it. Is to remember to reinforce with older persons to never stop a drug just because they're on a list without first consulting their clinical provider, because again, they may need to be tapered. And they need to understand it in the context of everything else that's going on with them.

On the right, you'll see an article. It's actually called How Should Nurses use the Beers Criteria? And this would apply to the START/STOPP criteria, too. And you can access this. It's an editorial. So you can access it for free on [helio.com](http://helio.com).

So just to summarize a couple of things that I think are really important in terms of safe and effective use of medications is to have a system that engages individuals and caregivers really as partners. Again as partners. Even persons with dementia. You may think, "Well, I'm going to talk to the caregiver." No, don't do that. Also talk to the person with dementia or the person. Talk to them actually first or talk to them together.

We also need medication lists that're really truly informative lists, but they're also portable and consumer friendly. So many times we create lists that aren't necessarily friendly to the consumer. And then a team approach, which I think we've talked about. And that team can even include, in our case at Penn State, we many times work with engineers to think about, "How can we do this differently or better?"

So I'll end and turn this over to Marisilis with saying that -- and I'll also steal a quote from [Don Burowitz] from the Institute of Healthcare in his recent talk where he said, the best way to address medication use is all together or not at all.

This is truly one that requires a interprofessional, interteam approach where we have cooperation, not competition with a shared purpose.

So I am pleased to turn this over to Marisilis Tejeda who will give us some insight into health coaching. Thank you.

**Marisilis Tejeda:** Good afternoon, and thank you for the opportunity. Once again, my name is Marisilis Tejeda. I am a Senior Health Coach for City Health Works, which is a community-based not-for-profit organization that serves as a link between the patient and the health system to provide the tools and services needed in order for the people in their community to take control of their health, their life, and as a result, reducing health and medical costs.

What does City Health Works do? City Health Works coach clients to better manage chronic illness including diabetes, congestive heart failure, high blood pressure, and asthma. Coaching is done in the home or whatever is most convenient for the client. It could be a local park, a hospital, or a community facility.

City Health Works hire and train workers from the neighborhood to become health coaches. So they are chosen from their own neighborhood to serve their own neighborhood to be healthier. And because they understand the culture, they speak the language, and their background, it is easier for the people to feel comfortable and follow through their program.

Clinicians who provide a team of health coaches, which means that they do not work on their own, but they are supervised in a daily basis. City Health Works also use motivational health coaching and ongoing care coordination to provide clients with the knowledge, capabilities, and confidence to take control on their health. So tools are provided by the health coaches for their clients to take control in their health, and their lives, and also to advocate for their selves.

City Health Works inform referring providers about urgent and routine medication, psychological, and social needs of individuals to ensure access to the right care, from the right person, at the right time by escalating any issue or need of referral including depression to their provider through the supervisor of the health coaches. And here in this picture, we can see in action a health coach with a client and the doctor in a doctor's visit.

Health coaching and care coordination. Referrals and enrollment. They're done in two different ways. One is clinical referrals and other one is cold-call outreach via population health lists in

which the person do not know the organization nor the program most of the time. So it is a coach responsibility to present the organization and explain the program to the client with the hope that they are going to be able to enroll.

The health coaching is done in three different phases. And the first one is the weekly in-person sessions, which is basically covering education. They go through disease knowledge, medication adherence. The first session is usually medication reconciliation, where the coach has the opportunity to go through the -- home visit the client and check their medication one by one. What're they taking this medication for? The different milligrams that they are supposed to take in, and just make sure that they are following the instructions given by the provider for medications.

They also help the clients with the risk reduction, symptom, and control, and monitoring. Also healthy eating and physical activity, including a walking club that is taking place when the weather permits, twice a week for the clients to be able to meet other people with their condition and also have some physical activity. And also help coping and support including depression and support at home.

The second and the third phases of the program is biweekly and monthly in-person or over the phone check-ins. And even though it's not included directly education, education is reviewed according to the need to reinforce anything that a client is lacking to make improvements.

They also do escalation of urgent and semi-urgent needs, evaluation and management also socioeconomic and psychological and psychosocial barriers, and scheduling and navigation support, accompany clients to medical visits, as we saw in the previous picture, and regular progress to the clinician about their goals and any issues that they might have.

Also they accompany them to social services to review their stigma and ensure needs that are met. For example, if they need to go to and register at a food pantry, because they are having issue with their food or maybe to get some medical devices or supplies that they might need to better move in the house. Those are referred by the coaches and they accompany them to register and provide whatever information it is needed.

And the last slide, please. And that is the case study that we have. And that is Mr. M. We can see that the doctor prescribed 1500 mg of their diabetes management medication, but client only received 30 750 milligram pills from the pharmacy.

Health coach contacted a health coach supervisor, who called a certified case manager right away. Certified case manager emailed the client's primary care physician to confirm the correct dosage.

Client's physician confirmed the 1500 milligram dosage and realized that the script went over to the pharmacy wrong. The pharmacy gave the client a 15-day supply by mistake. Physician sent over a new script to the pharmacy with the correct amount of 60 pills. And that is a job of the health coach. They check everything. They report these issues right away to their supervisor, and their supervisor report this immediately to the provider in order to resolve the issue as soon as

possible. And this is all. Thank you very much for the opportunity for connecting and paying attention.

**Caroline Loeser:** All right. Thank you so much, Dr. Semla, Dr. von Sternberg, Donna, and Marisolis, for your presentations. This has been incredibly informative. Thanks so much for joining us today. With that, we have a few minutes now for questions from the audience.

So at this time, if you have any questions for our speakers, please submit them using the Q&A feature on the lower left of the presentation. Type your comment at the bottom of the Q&A box and press Submit to send it.

So we have a couple of questions that came in during the presentation. So I'm going to start with Dr. Semla. And this question came from the Agency for Healthcare Research and Quality in Maryland.

And the question is that, "Older adults tend to have many treating providers. What can be done to reeducate prescribers about stopping a medication they hadn't initially ordered? Why do physicians tend to be reluctant to revisit the medications, especially if there are side effects?"

**Todd Semla:** Well, I think there's a couple things there. First it's really important that patients and their caregivers almost, they have to act as their own advocate. And you cannot assume that because you're seeing five different doctors that they all talk to each other. They usually don't.

So you have to take a list of all of your medications and show them to each one of them so that they're very familiar with what you're taking and there needs to be one person who's kind of in charge, the primary care physician is usually that individual who's sort of going to coordinate those efforts.

So that's one of the things. And ask questions and have those questions written down before you go in to speak with the provider so that you don't forget them. And make sure they know you have these questions so they save time to talk to you about it.

I'm trying to now remember what the second part of that question was.

**Caroline Loeser:** The second part was just about how physicians tend to be or, "Why do physicians tend to be reluctant to revisit medications with side effects?"

**Todd Semla:** Yeah, the research tells us that in terms of making changes to medications, I think you really have to hit home hard that this is a side effect that is really bothering you. You're having to take another medication to treat it. You're being constipated. Now you're taking a laxative. That you really have to let them know that this is a problem to you.

Second of all, physicians are more likely to make a change in the dose. Sometimes they'll change medications if another prescriber has prescribed, but they're often very uncomfortable doing that or even discontinuing a medication another prescriber has started, even though there's no rationale for the patient to be on it. They're very hesitant to monkey with that.

**Caroline Loeser:** Great. Thank you. All right. And then a question that came during your presentation. Marisilis, you may be able to respond to this as well, but the question is, "What can we do as care coordinators to increase the communication between the physician and patients? Especially if there are multiple doctors involved?"

**Donna Fick:** Yeah, that's a great question. I see it often because what I often see with the older adults is they'll have one primary physician that they're seeing quite often, but then someone else put them on another one. And they're afraid to hurt their feelings, or to say, "Do I still need to be on this?"

I think trying to use that PCP or care manager to coach them, again, sort of like Todd said. Let them know what's happening. I just barely mentioned it, but the medication therapy, MTM through Medicare Part D has been found to be very effective in terms of getting people down to a smaller number of medications, to increasing adherence, and I mean, it's pretty proven to help that.

So again if they're coming up with obstacles in terms of multiple different providers, having one person step in and look at everything I think is good. Another way is to have a coach go in, and I'll have Marisilis talk about this, but have someone come with.

Because what happens often is they only have seven or ten minutes to say what their concerns are. So writing out their concerns ahead of time and maybe focusing on one or two things instead of ten. Those are a couple things. And Marisilis might have some ideas, too.

**Marisilis Tejeda:** Yes, I may add to that. We go usually with the patient to the appointments and make sure to know the doctor and to see what is the relationship and communication that exists between both.

We also prepare the patients, the clients, before they go to their appointment to take a note and write down all the questions that they might have and all the concerns that they might have and as you mentioned before you speak just a few of them just to make sure to bring your medication with you. And again, any concern that you might have to the doctor's appointment so it is easier in a short period of time for the doctor to be able to listen and understand and try to assist in whatever it is needed.

And we're usually there in the beginning to help them. And then we train them and help them. Providing them the tools needed in order for them to take charge and then to learn to advocate for themselves. So they don't need us to go to every appointment. As long as they know exactly what to do and what questions to ask and how to address the doctors, which want to help. They want to help, but they don't have that much time available for every patient.

**Caroline Loeser:** Wonderful. Thanks for sharing your insights, Marisilis and Donna. So I'll turn now to a question for Dr. von Sternberg, but others please feel free to jump in as well. The question is, "Dr. von Sternberg, you talked about adverse drug events and the physiological

changes that can occur. What kind of regular monitoring by family members or the physicians is needed?"

**Thomas von Sternberg:** That's really important question and I think it gets to the idea of what's the structure of how often we want to have our complex frail elders seen. And what should occur during those encounters.

With the example of Mrs. Smith and Mrs. Ryan, clearly the need for those patients and families to be in connection with their physicians at intervals more than likely four to six times a year, maybe even more often.

But typically monitoring of the metabolism of both the organ structures like renal and liver function and also though drug levels when appropriate, that can be one usually once or twice per year. The exception is the blood thinner, Coumadin. That needs to be even much more closely monitored.

But one of the ideas of, boy, why is it important to establish that consistent relationship with a physician? It is just for that very reason. Monitoring of those metabolic factors. Really important. And so I think that the sense of can one person do that? Or again what about the kidney doctor or the cardiac doctor? The rheumatologist and the primary care doc? Again the hope is that they are understanding the fact that those tests are accessible by all or at least communicated to each other.

For organized care systems that works better than for singular practices that're not aligned. And so I think your hierarchy of risk has to do again with what kind of care group or care system is your patient and family interacting with. Because the communication, as has been said, is so critical.

**Caroline Loeser:** Wonderful. Thank you, Dr. von Sternberg. Go ahead.

**Thomas von Sternberg:** The other comment I would make referencing our issue about how to approach encouraging doctors to make some changes. I think one of the ways we as advocates for patients who are complex and frail gets down to what Donna emphasized so much, which is approaching a physician about what's most important to me or to the patient I'm advocating for is I don't want to be tired. I don't want to be constipated. I don't want to be dizzy. I don't want to take all these medications. What are the options for me? What choices do I have? Offering that - physicians for the most part will respond to those queries, I think, in a positive manner.

The courage of stopping a medication started by a nephrologist, if the premise is I understand from what I've learned as a patient, family, or care coordinator, you know what? We have different goals and different endpoints for frail elders. Couldn't we consider stopping and seeing what happens?

Patient and family are comfortable with watchful waiting. I think again that's where the physician can feel more comfortable if we focus it on what's most important. Otherwise transactional

healthcare visits, we get what we put into that. A transactional visit is numbers driven and encounter driven, treat, not treat, add, add more, what have you.

So I really do think the transformation here has to do with can we change the relationship of why a patient is being seen by their physician, and especially for our complex frail elders. So that is a really important takeaway.

**Caroline Loeser:** Absolutely. Thank you for sharing. I'm going to turn now to a question. Marisilis, this came up during your portion of the presentation. It's a question from Johns Hopkins Healthcare in Maryland.

And they want to know more about the qualifications for health coaches and what training they receive. Marisilis?

**Marisilis Tejeda:** Yes, they go through very extensive training when they applied and they are accepted to City Health Works. And it's a very special program that Jamillah Hoy-Rosas, who is our Chief Health Officer, is the one that put together that program, which is very intensive.

So everybody that is hired by City Health Works, the first few weeks to a month, it will be going to very intensive training, which I went to school to get a certification, but this, which was about six weeks, really provided me more information, and more knowledge, and more confidence than the training, the certification that I got from college.

**Caroline Loeser:** That's interesting. Thanks for sharing that extra detail. All right. I'm going to turn back to a question that came during Dr. Semla's presentation. And the question's about how to help clients communicate their symptoms so that you can avoid prescribing the wrong medications with maybe a client and having a difficult time describing their symptoms.

**Todd Semla:** Okay. That's a good question. I don't think I've ever been asked that. I think probably one of the things I would recommend is to again write these things down as you're thinking of them so that you have something to read back or show the physician or provider when you see him or her.

That's probably the best advice that I can have so that you've got a good description of what it is as opposed to trying to find the words in the short time you have face to face with the provider. And I would ask any of my colleagues on the panel to chime in and offer maybe their advice.

**Thomas von Sternberg:** I think a classic example is pain. The word pain and how again not getting clarity on that is important. The second issue around trying to understand also gets to not necessarily the symptom itself but I think a second question to either make sure you're asking or that clinicians should ask is how does that symptom affect your day? Your function? Your quality of life?

So it's linking the symptom to what's the consequence to it? And again, poor sleep. Getting more detail about what that means and finding out is there time for education about, well, napping and

other hygiene issues, et cetera. So I think it's trying to get those two things connected. Also very helpful.

**Caroline Loeser:** Great.

**Donna Fick:** This is Donna.

**Caroline Loeser:** Go ahead, Donna.

**Donna Fick:** I was just going to add maybe keeping a diary sometimes, too, can be helpful depending on what the symptom is, but I agree with describing what does it do to the individual, not just a symptom or condition.

**Caroline Loeser:** Yeah, that's a great tip. Thank you. All right. I'm going to move on to another question. We're getting lots of questions in the chat. So thanks so much for all of the engagement from the audience.

This question came from UPMC in Pennsylvania. Dr. von Sternberg, I'm going to have you address this question, if you don't mind, and others can weigh in as well. But the question is that, "I've noticed that neurologists and PCPs prescribe opioids, benzos, and Neurontin along with other medications for chronic illness.

Why does this still occur when the PDMP, which stands for Prescription Drug Monitoring Program, is available for use? Also how do care managers approach this with the prescribing doctors?"

**Thomas von Sternberg:** Great question. Those three medications listed are what Todd and I have again put in those categories of high-risk medications. The PDMP is a tool that physicians can use to see who else is prescribing controlled substances and high-risk potentially addictive substances.

That is a step that is taken but typically it has to reach a certain threshold for a doctor of significant behavioral issues of the patient. I would simply say that seniors will often get a pass by clinicians because they're not necessarily as aware that addictive behaviors can occur in that older frailer group.

Having said that, I think our neurology colleagues and primary care will still think of benzodiazepines and opioids as reasonable treatments, but again not necessarily taking that next step of understanding the long-term consequences.

So we still have a lot of work to do for education. And again it is right now the standard of care is not viewing benzos, and opioids, and Neurontin-like medicines as high-risk and dangerous medications.

We're getting there. In many ways, again, we should view them now as weapons, not as helpful tools. Well intended but extremely high risk.

**Caroline Loeser:** Sure. Thank you. All right, Donna, I'm going to turn now to a couple questions that came up during your presentation. These came from the Area Offices on Aging in Northwest Ohio.

So, they would like to know if anyone has a medication adherence or a medication management questionnaire that you could give permission for use of a non-profit, CBO, case management program. They were also interested in learning more about that All About Me tool that you referenced and whether or not -- how they could go about obtaining permission to use that.

**Donna Fick:** Sure. In terms of a medication adherence tool per se that I would recommend, I don't really have one. Now, Todd and Tom may. I will say again that medication -- that MTM has been shown to improve adherence.

I know that Nikki Brandt, B R A N D T, has written several papers about adherence, and I think she referenced some of the tools in her paper, but that's not something that I use routinely, at least not anymore. So not so helpful there.

In terms of the All About Me tool, we freely share that. I'm not sure how to get it to the 1,700 participants here. The other thing I'd say is this is an older version. The slide is an older version and we've actually changed it to make our questions more about what matters, what concerns you the most. And so because it's made on a PowerPoint slide, you can easily change it to meet your local context and your local setting and culture.

The other thing I'd say is we print them -- we actually print them in bright color very cheaply and they can write on them. We have had some places that said there were some issues with HIPAA violations. We don't find that in the hospital setting if it's in the room. But if that's an issue you could make it a smaller form or some way where you protect their privacy, if that's an issue you have.

But there're many versions actually of All About Me boards. This is one of ours. We also wrote a paper about the case example of how we've used it in the past and you can access that for free, again on helio.com. Hope that addresses that.

**Todd Semla:** I'll add a comment about the adherence question. I find that it's best to find out why the patient is not being adherent with their medication. Then look for an intervention that addresses that as opposed to some places, "Well, get a pill box. Get an organizer."

Well that works if you have trouble keeping your medication straight and don't remember if you took your medication this morning, and you can look and see if the box is empty, but unless it has a built-in timer, it's not going to remind you to take your medication.

So I think that's really important to look. Is it financial? Is it they just don't believe they need that medication or that much medication? Is it they don't like the way it makes them feel?

**Donna Fick:** Yeah, I would maybe just add to Todd's thing in saying that several studies have shown that. Everyone's trying to find the perfect pill reminder. Particularly with technology. Most of that literature is very conflicting because of what Todd just said.

And that is that people aren't taking the time to understand what's actually causing the non-adherence, for lack of a better term. And non-adherence, by the way, is often not a good term. Because it lacks understanding of what might be going on.

**Thomas von Sternberg:** I think it's also important to remember that the evidence would show that once you get above two medications taken more than once a day, your risk of a gap is up by 50%. Our patients simply cannot comply with the complex regimens we've given.

That helps us in two ways. One of the parts of the language of how to engage with clinicians is this individual is not taking this medication and cannot take it three times a day or four times a day. This individual cannot manipulate the inhalers that you've offered for their COPD.

What is available for simple or can we at least recognize since they're not taking it, why not have a pause and a watchful wait? I think that's part of the platform for engagement of letting people express, "I can't get this done." And that's the Care Manager's role to again advocate in that space to then be another voice of, "Best intended, but Mrs. Smith really cannot take 36 different doses a day."

**Caroline Loeser:** Great. Thank you, everyone. That was really insightful. We have a couple more minutes just for a few more questions. So Marisilis, I'm going to turn to a question that came up during your presentation.

And I don't know if there's one solution to this, but maybe just from your perspective, how can family, advocates, or health coaches best deal with the difficulty in reaching the physician directly? In our area it seems like there's just a 800 number to call. One has to be on hold for a long time, and then maybe we can talk to a live person. Getting to talk to a doctor is becoming a real challenge.

**Marisilis Tejeda:** Yes, what we do is we use champions. And we choose whoever is close to the client. It could be a relative. It could be a best friend. So even a home attendant, if they live alone, we try to work along with them.

They are different way to help and it's to provide them with the right numbers to call in the department. And also, we have our supervisor, as I mentioned before, that whenever we have an issue or a question from a client, it is escalated right away to the supervisor.

So in this case, if there is an issue scheduling an appointment, we help them to navigate through the system. That supervisor will usually send a message to whatever provider, or social worker, or case manager that they need to contact if there is any issue with that. And we will do that through a supervisor.

So as I mentioned before, the health coaches don't work alone on their own. We are supervised very closely and we are the bridge between the patient and the healthcare system.

**Caroline Loeser:** Great. Thank you, Marisolis. We have another question that came in. We have time for just one more question. And then we can follow up with all the other questions online. We can post the answers on our website.

This question came from Washington Residential Care Services. And I'll kind of direct this to the broad panel discussion, and whoever would like to respond, please go ahead. The question is, "Do you have any recommendations for working with individuals with mental health disorders to ensure the safe use of medications?"

**Todd Semla:** So I think it's important to determine whether or not that individual is capable of being responsible for their medications. And there may be times where they are and there may be times when they are not. And is there somebody that can be identified who would be responsible for medications, whether it's a family member, a friend, a roommate, someone like that during periods of mania, for example.

**Thomas von Sternberg:** I think individuals with chronic persistent mental illness who're living independently in the community, extremely challenging without there being an advocate or a frequent way to check in on them.

Technology such as reminders or prompted dispensing devices can be used, but again, based on that degree of mental illness, they may not respond. Individuals in residential communities, I think again in that respect, you've got a much better ability to connect, monitor, reinforce, and be aware where there are gaps.

But I think we all will struggle with the mental illness or again the individual with dementia who lives alone who has no caregiver support. How do we ensure adherence or insist on follow through with medication regimens? (multiple speakers) answer.

**Todd Semla:** Yeah, those are situations we've used medication trays or pill boxes that are exchanged weekly by the pharmacy so you have some sense of what's being taken and what's not being taken, provided it's an honest tray that the person doesn't just throwing them away. But those are some things that can be used. But again it doesn't work for every patient.

**Caroline Loeser:** All right. Thank you so much. At this time if anyone on the line has any more questions or comments for our wonderful speakers, please feel free to email them to us at [RIC@lewin.com](mailto:RIC@lewin.com).

And for more information, you can also find a list of resources mentioned during this presentation by our speakers on the last slide of this presentation. And we'll also plan to post this to our website along with other resources that were mentioned during the Q&A discussion.

So before we conclude for the day, we'd just like to invite everyone to join us for the next webinar in our 2018 Geriatric-Competent Care webinar series, ***Supporting Older Adults with***

***Substance Use Disorders.*** The link to register for this webinar is on this slide and we also have more information about it on our website.

The slides for today's presentation, a recording, and a transcript will become available on our website shortly. And at this time, the post-tests for this webinar are now open. Additional guidance about obtaining credits and accessing the links to the post-tests can be found within the Continuing Education Credit guide and the Resource Guide on the left-hand side of your screen or at the Resources for Integrated Care website.

Thanks so much for joining us today. Please complete our brief evaluation of our webinar so that we can continue to deliver high-quality presentations. If you have any questions for us, please email us at [RIC@lewin.com](mailto:RIC@lewin.com).

Thanks again to all the speakers. Have a wonderful afternoon, and thanks so much for your participation.