[MUSIC PLAYING]

ROY CHENGAPPA: Hi, everyone. Welcome again. I'm Roy Chengappa, professor of psychiatry at the School of Medicine at the University of Pittsburgh, and the service chief for the CRS service line at the Western Psychiatric Hospital. And I'd like to start this next part of the presentation by introducing Dr. Jessica Gannon, who is an assistant professor of psychiatry at the School of Medicine and also medical director at the CRS ambulatory clinics. She also has a secondary role in that she is the medical director of the e-electronic records that we've just implemented here at Western Psychiatric.

So she will talk at this point about stories from the clinic, patient related things. Dr. Lupu, my colleague, had talked about the projects we did. She talked about individual patients that got this going. But now Dr. Gannon will illustrate for us successes, and barriers, and successes again of patients who are, then, maybe good candidates to get their anticholinergics reduced or discontinued. So with that, I'll hand off to Dr. Gannon.

JESSICA GANNON: So thanks, Dr. Chengappa, for that introduction. Before I get started, I should say that I have no conflicts of interest to disclose. As Dr. Chengappa mentioned, today I'm going to spend some time reviewing some clinical vignettes from our pilot project to highlight to you how our patients did improve with anticholinergic deprescription, but before I get started, I wanted to review some of the important take home messages from part one of our series.

First, Dr. Chengappa went over with you some of the clinical relevance, the clinical importance, of deprescribing anticholinergic medications that are used for acute EPS, that can occur when patients start an antipsychotic medication. Anticholinergic medications used for this include benztropine and trihexyphenidyl, and there is no real clinical indication for these to be used chronically, and they can almost always be safely deprescribed.

And that brings us to our second take home point in that anticholinergic medications can cause significant side effects, so deprescribing them can improve our patients' quality of life. Dr. Lupu did a review with you some of these

anticholinergic side effects in detail, and as you likely recall, they include such things as tachycardia, constipation, dry mouth, dry eye, and memory impairment.

And then, finally, the last take home message from part one was Dr. Lupu's description of our pilot intervention, through which we were able to identify patients that we thought would benefit from anticholinergic deprescription. These were clinically stable patients who had been on anticholinergic medications for a significant period of time whom we felt would clinically benefit from the deprescription of benztropine or trihexyphenidyl specifically.

So the objectives of my talk today you can see here on my slide. Again, I'm going to go over some clinical vignettes and highlight some positive patient outcomes. I'm going to go over some improvements that our patients saw and then also share with you some predictors of success to deprescription that we compiled when we reviewed these success stories. Likewise, I'm going to analyze some of the barriers to success that we encountered. And then, finally, Dr. Chengappa is going to come back, and he's going to review a decision pathway that we compiled taking into account some of these predictors and barriers to success, and we hope that you will find this decision pathway helpful in your own practice when you deprescribe anticholinergic medications.

So the first case I wanted to review with you is a quite typical case of our pilot project. Mary is a woman in her late 40s. She has a diagnosis of schizophrenia and has been on antipsychotic medications for decades. She is currently on clozapine and aripiprazole.

We found that she had been on benztropine for quite some time. And, in fact, I had just been prescribing this for years, and when I asked Mary about it, she thought that it might be for clozapine-induced drooling. But because of this pilot project, I thought I should ask her a little bit more about this, and she indicated to me that drooling had never really been a problem for her.

So we spent some time together looking back in her chart and found that it had actually been prescribed when she was on Risperdal, which had subsequently been changed to Abilify. When she started Risperdal, she had had some Parkinsonism that was mild to moderate, so the psychiatrist at the time had started Cogentin. And,

again, benztropine had just been continued, even though she was no longer experiencing EPS, and she was even on a different antipsychotic agent.

Mary is someone who is very sensitive side effects, and she is also someone who adeptly links side effects to her quality of life. So she was quite keen to participate, and we were able to reduce her anticholinergic burden quite significantly. We were able to stop benztropine and also hydroxyzine, which she was taking for anxiety.

She noted that she had improvements in memory, as shown here on our next slide, and she felt that these were quite significant. And she also noticed an improvement in dry skin. Her ACB score, her anticholinergic burden score, reduced a bit.

I'll go over again with you what is contained in the anticholinergic burden score, but I just wanted to highlight here that she still was on medication, that she needed to remain on these medications that had significant anticholinergic side effects or the potential for these. But even though we couldn't completely deprescribe these anticholinergic medications, she still had a significant reduction and side effects.

So, again-- and you may remember this slide because Dr. Lupu reviewed it with you-- but this is the anticholinergic burden scale. It is a widely-used and validated scale, and it just categorizes medications in terms of their potential to cause anticholinergic adverse effects. So a medication with a score of three is considered clinically relevant in terms of its anticholinergic side effect potential.

So when we think of Mary's score, that was reflective of her being on several medications with high ACB scores. And, again, we couldn't discontinue all of the medications that have a high anticholinergic burden associated with them because she needed to be on them to help her maintain her mental health recovery.

So our second patient that I wanted to share with you today-- I wanted to share with you his story-- is Andre. He is a gentleman in his late 20s. He is a very compliant patient, meaning that he is someone who is very adherent to all of his appointments. He takes his medications without fail, and he is someone who becomes rather attached to his medications. It starts feeling fairly early on that they are instrumental to his maintaining his mental health stability, and so every medication that he starts tends to become chronic.

He was someone that, unlike Mary, was one of these few patients that needed a lot of reassurance to be able to successfully reduce his benztropine. Minor changes were accompanied by unexpected symptoms. So he had some dizziness. He experienced headaches. But ultimately, he was really pleased with the results, and he remained engaged the entire time. As you can see, his ACB score was a four, and we were able to reduce that to a one.

The pass here reflects-- it's a collection of all of the different anticholinergic side effects that he was experiencing. And you can see that this was significantly reduced, but he still had some anticholinergic side effects by the end of our intervention. But his quality of life, as you can see, started off at a five, meaning that he felt that he was experiencing a moderate impact on his quality of life due to anticholinergic medications, and by the end of the intervention, we got that down to zero. So, again, even though he was still experiencing anticholinergic side effects, our reduction of his anticholinergic burden resulted in significant improvements in his quality of life.

So when we think about Andre, and we think about Mary, and other success stories, we were able to compile a list of predictors to successful engagement with anticholinergic deprescription at the patient level. So the patients that face the most success were patients who were engaged in their mental health treatment, with their recovery, and they were able to identify anticholinergic burden reduction with their recovery and with improving their quality of life. These were patients that were adherent to appointments and, moreover, just adherent to following a prescribed taper.

Again, we only recruited stable patients. Patients who are in the midst of a psychotic decompensation may not be appropriate for anticholinergic reduction. They really have other symptoms that need to be addressed before they can meaningfully engage in anticholinergic deprescription. Also, patients who trusted that we were on the same page with them clinically did best with anticholinergic reduction.

So I did want to present to you a couple of cases where the patients did not meet with success. Ashley is a woman in her late 60s. She met with me several times during the course of this intervention, where I did discuss with her trying to reduce her Cogentin. She is on a lot of anticholinergic medications, and with her advanced

age, I thought it was particularly important because she is at a higher risk of delirium.

And she strongly believes that all medications she is on are helpful, so she is very emotionally attached to her medication. And she did actually agree to meet with Ana a couple of times. And she did agree with me, finally, to try to reduce her Cogentin, but when we attempted a small decrease, she did note re-emergent EPS symptoms, although we did not observe them.

At the time that I was trying to deprescribe anticholinergic medications, though, and trying to engage her in this process, I was also tapering a long term benzodiazepine. She had had a number of falls and had also admitted to me misusing her Ativan at times. So although she agreed to the taper, that was a very tentative agreement, so there was a lot going on in our relationship at that time. So it was a challenge for her to think about stopping her Cogentin while she was stopping her Ativan.

As you can see though, her ACB score was quite high at a 10. And she did note a number of anticholinergic side effects, as I've listed here, and agreed that they impacted her quality of life. This just goes to show that even if a patient isn't ready when you are ready for them to reduce their anticholinergic medications, it just means that you have to continue to address it within your med management appointments. And it wasn't the right time for her, but we're going to continue to review it, and I'm optimistic that ultimately we will be able to decrease her anticholinergic burden.

Last but not least, my patient Bob did not meet with success in reducing his anticholinergic medications. He's very engaged. He was someone that did want to decrease his overall pill burden in that he's very concerned about co-pays. He does have a lot of co-pays and thought even stopping one or two medications would help him save some money.

So he was able to stop benztropine. He wasn't on a very high dose to start with, but he did have some re-emergent EPS. He started having Parkinsonism that was significant enough to cause him embarrassment, so he asked to restart on a lower dose of benztropine, and we did end up restarting him.

So thinking about Ashley, thinking about Bob, and the few other cases we had that

were not able to ultimately reduce their anticholinergic medications, we found that predictors to them not succeeding included things like nonadherence, not following up with appointments, not being able to follow a taper, not being fully engaged with us or trusting us, again, not being on the same page clinically. Patients who were emotionally connected with their medications, like Ashley-- With some patients, we did have some success in reducing them regardless, but with Ashley, it was a bit of a roadblock.

Patients who weren't clinically stable or who were symptomatic, again, we didn't include in our pilot intervention, and we do think that would be a significant barrier to deprescribing anticholinergics. And then finally, thinking of patients like Bob, when we do have that rare patient who has an emergence of EPS symptoms, we may want to stop the deprescribing process at that time, when we see that emergence, and reassess.

So thinking about provider predictors of success and barriers-- and I'm thinking about individual providers and I'm also thinking at a clinic level-- where we found success was when providers were engaged providers, in general. They were people who were interested in quality improvement projects or just wanted to practice good clinical care. They tended to be really recovery-oriented providers.

And these were the type of folks who-- when we just emailed them that we'd identified that their patients had been on anticholinergic medications for some time, just presented the evidence that indicated that these could be reduced successfully-- they were the kind of people who just jumped on board right away and were able to work with their patients within the standard practice and meet with success.

They tend to be pretty collaborative and are able to use resources. So when we did have, again, the rare patient, like Andre, who needed a little bit more support, they were able to reach out and say, hey, can somebody else help me with coaching this patient and observing this patient.

We didn't face a lot of barriers with providers, but we did talk to a couple of people, specifically when we were presenting this project in different venues, and they did mention sometimes that they were worried about deprescription because they'd

had some past failures. And sometimes when you have a failure in deprescribing, you generalize that, I think, and you worry that it could happen to any of your patients.

And they also were concerned to some degree about questions regarding the deprescription process. Would this be disruptive to the rapport that I've built up with my patient? Is this going to make the patient less satisfied with me? And thinking about patients like Ashley, who was someone who was very difficult to engage in this process, ultimately, I still see her. So it wasn't disruptive to our treating relationship.

And then last but not least, but important to mention, some of the providers were worried that they may not have enough time or resources, but once you get started, you realize that this is a pretty low bar, and a lot of the patients will be readily able to engage in this.

OK. So thank you.

ROY CHENGAPPA: So hello again. So this is the conclusion section of parts one and two, and what I'm going to do here is try and summarize this decision tree slide. It's very busy, but it speaks to what we do as clinicians.

So you've heard my colleagues Dr. Lupu and Dr. Gannon talk about how it was achieved. In this decision tree, we aim to provide guidance. If I was a practitioner practicing in a fairly busy clinic and I'm seeing patients with schizophrenia, or psychoses, or anyone who's getting an antipsychotic along with an anticholinergic drug, how would I think about what to do about that anticholinergic drug?

And you've heard the stories from the clinic of people who should be selected. So I think maybe if I had a caseload of, say, 100 patients, just for argument's sake, and I thought of 10 just from the top of my head, what 10 would these be where I could go after the anticholinergic drug and talk to them about deep describing it? I would probably pick patients who had been taking both the antipsychotic and the anticholinergic drug for at least six months, just to make sure that they were stable psychiatrically, and then I would do the little extrapyramidal side effects that I had described earlier in the presentation when I was introducing this topic in part one.

So I would literally look for wrist rigidity, elbow rigidity, and tremors and see if it's still there. If it's not, maybe it's time to reconsider if their bodies have recompensated and, basically, this medication is no longer needed. That's sort of the thinking I would go with.

And at that point, if the patient was ready, I would talk about side effects of anticholinergic drugs and ask them, do you have a dry mouth? Do you have bladder problems or urinary retention? Do you have constipation? These are things we commonly hear.

Do you have blurred vision? Do you have a fast heart rate that you feel, or do you have dry skin? This is rarer, but you still hear it every now and then. Or do you have memory issues? Now granted, all this may not be due to anticholinergic drugs-- it may be due to various other factors-- but they well could be.

We could use the scales that Dr. Lupu and Dr. Gannon talked to us about. There are resources that we will provide in this presentation as references, and we have a team here that's done it for the last three to four years. We're here for you as part of not just Western Psychiatric Hospital and its clinics, but also the network of the UPMC-wide clinics that might look at this presentation and want to undertake deprescription of anticholinergic drugs. We might also be available to any others that look at this presentation, that are outside our system, as part of our community engagement.

So once we decide we have patients who are interested, we could use scales. We could just ask them questions. And if they're willing to taper, how would we go about doing it?

If they were, for example, on two milligrams of benztropine, a relatively low amount of benztropine, or someone else is on three, or someone else is on four, it depends on how often you see them. Do you see them once in three months, or four times a year. in other words, or do you see them monthly, and are they still stable? But you have a certain frequency of seeing these patients, so I would typically cut it down by about a quarter, or 25%, each time.

So I might cut it down in baby steps. In fact, I would say things like, we would cut it back in baby steps, to counter nervousness that Dr. Lupu, again, talked about. And I

would say, we can always go back up to the dose you were on. So we would say things like this. We would prep them, if you like, and then we would simply say, when you come back, or, if you need to call in between, do so. We would be there to support you.

I understand in super busy clinics, we may not have a Dr. Lupu to support you, or may not have teams to support you, but you could call back, and we would be willing to take this phone call. And that would only engage the patient more.

You could always spin the positives, less co-pays, less medicine, less medication and pill burdens. And then we could just go about decreasing it by 25% till you're done. That could be, as Dr. Lupu had presented in her presentation, one month for some patients, eight months for others. It doesn't really matter. You could just do it clinically as you see fit.

All right. So this slide literally indicates a pathway on how you can go about it, but in a nutshell, I've presented to you who I would target first. This includes the psychiatrically stable patient who's on both drugs for prolonged periods of time. And ask about any EPS type side effects. You would do that.

Ask about anticholinergic side effects. This would help you to monitor if, for instance, of all the anticholinergic side effects, dry mouth was the worst, and they were chewing a lot of gum, using mouth moisteners, or using candy and getting their teeth rotted, if you like. I'm just exaggerating, but you get the point that if you picked a side effect, you could monitor that as you get rid of it.

And as we've seen for ourselves in our last four years-- and we do this well beyond these quality improvement projects-- the vast majority of people, in fact, benefit and like the fact that there are fewer pills. Every now and then there's someone who's at great risk for EPS type side effect, and, as Dr. Lupu pointed out or as Dr. Gannon pointed out, they either don't want to come off it or you have to go back on it, sometimes to the full dose, even, of the anticholinergic, and that's OK.

I don't think we're talking of a clinic with zero anticholinergic medications. I don't think that's practical and feasible. But do we need to come down on the vast majority who've been taking it for months and years? I think so, and two out of three times, we seem to succeed.

And at the end of the day, when you've done it, as you're documenting in your notes, you will have a different engagement with this patient. And, really, if this is one of the medications we could deprescribe in psychiatry, we should. And I would really goad you to rethink of the patients that you see in front of you on combinations of these meds and go about trying to deprescribe anticholinergic medicines the best you can.

So thank you for your attention to this program, and at this point, we are done with part two of this.