# Creating the UC Menopause Collaborative: An Opportunity for Research and Clinical Collaboration

Kathryn Macaulay: Hello and thank you so much for the opportunity to speak today. I'm Dr. Kathryn Macaulay, clinical professor of obstetric gynecology and reproductive sciences here at UC San Diego Health, and I'm director of the UCSD Menopause Health Program. I'm here today with my colleague from UCLA, Dr. Rajita Patil, who is the director of their comprehensive menopause program to talk to you today about creating the UC Menopause Collaborative, an opportunity for research and clinical collaboration. We'll first start with some background information. The average age of menopause for women in the US is around 51-52-years-old. This demographic is a growing population with 30% of women being over the age of 50, and women are living longer.

Average life expectancy in the US is 81-years-old. Women are spending up to 40% of their life after the menopause transition. Women in midlife are literally super women. They're juggling so many things, facing unique stressors and responsibilities at midlife, including caring for elderly parents, issues with childcare or empty nest syndrome, maybe dealing with new health issues. They may be at the top of their careers and requiring high executive functioning, and likely they have limited time for self-care.

Now you add to this the neuro endocrisrptive menopause. That can be hot flashes, disturbed sleep, insomnia, mood changes, and you have a disruption of a finely tuned equilibrium that is already stretched very thin. Alarmingly, over 50% of women don't receive care for their menopause symptoms, and fewer than 5% receive menopause hormone therapy. This is important because we know untreated symptoms impacts well being in the short-term. Untreated symptoms have been associated with significantly lower quality of life measures, impaired daily functioning, higher relationship and family stress and home disturbances, work effects and impairment with higher presenteeism and work non-productivity. A Mayo Clinic study from 2023 showed that the economic burden of annual loss workdays in the US is $1.8 billion and the total annual economic burden related to menopause symptoms is $26 billion, so it's got a huge economic impact there.

There is no one single menopause experience, and this is what makes it challenging sometimes to treat, is that you've got multiple organs and organ systems involved. There's been described 60 plus symptoms of menopause. We know that vasomotor symptoms are the most common menopause symptoms affecting up to 80% of women with a varying degree of frequency and severity. Vasomotor symptoms on average can last seven to 10 years, but 10% of women can have lifelong symptoms, so they may need treatment indefinitely. Other common menopause symptoms include disruptions in sleep, mood, and cognition, fatigue, weight gain, low libido, and genital urinary symptoms. Every person experiences the menopause transition uniquely and there's not a one size fits all approach that's appropriate.

What we have going on as well with menopause symptoms is they don't present necessarily one at a time, but they can present all together as a cluster of symptoms. Driving the symptoms are the hormonal changes, the fluctuations in estradiol and the decrease in estradiol that drives vasomotor symptoms, sleep disturbance, and mood changes. But then we see in the graph over on the left, your left, that vasomotor symptoms also adversely affects sleep and mood changes. Sleep can adversely affect mood, and then mood can also adversely affect sleep. You really have an interplay of different symptoms that are happening there. Very important to remember, too, is that a hot flash is not just a hot flash.

It's not just a minor disturbance or a discomfort that women should maybe just tough out or just disregard, but they're actually significant. Women with hot flashes have increased inflammatory markers that can lead to endothelial cell injury and small blood vessel degrees disease, which increases the risk of cardiovascular disease. Hot flashes correlate mood symptoms and sleep disturbance, and both are independently linked to increased cardiovascular disease risk. Undressed menopause symptom burden is associated with an increased risk of heart disease, and what's bad for the heart is bad for the brain and for most organs in the body. We see an increased dementia risk and increased osteoporosis risk as well in women with a high hot flash burden.

Treating menopause symptoms offers a critical window of opportunity for prevention. Other cardiometabolic risk factors that we see that accelerate during menopause includes increased vessel plaque and stiffness, increased blood pressure, lipid changes such as increase in LDL and decline in HDL, increased visceral fat, sarcopenia, insulin resistance, and weight gain. These symptoms actually can happen early on in the menopause transition and can happen rapidly. Again, the menopause transition is a critical window of opportunity for prevention by addressing traditional cardiovascular risk factors.

Now that we know all this, why are hormone therapy prescriptions so low in the United States? In this slide, I like because it outlines or shows the bumpy ride that hormone therapy has had over the years, starting in 1940 with the development of an estrogen product with conjugated equine estrogen. You see a rise then up until 1970 when the endometrial cancer risk was recognized, followed by a decline until the 1980s when a progesterone was included with the estrogen, the progestin being for endometrial protection. You see a steady rise from the 1980s, '90s. There's publication of the women Nurses Health study with positive benefits for hormone therapy as well as the PEPI trial. But then you see it really plummet with the final number 6 circle there.

That's the WHI in 2002, when they found that the risks outweighed the benefits in that particular trial for hormone therapy, and hormone therapy prescriptions really plummeted. If we were to extend that axis out though, to now, we would see an increase. Epic research did a study of millions of charts in the US, Canada, and Saudi Arabia. Looking at hormone therapy prescriptions from 2021-2025 and found a 79% increase in hormone therapy prescriptions, with most being in the last two years. We don't really have this formally published data yet, but I think we will soon, and we'll be seeing a rise. Back to 2002. We started a menopause program here at UCSD in 2004 based on, it felt like it was a good time.

We had a lot of confusion around the WHI in 2002, and the need for educated menopause providers was critical. Subsequent studies soon after the WHI showed that 50% of patients had return of menopause symptoms after abruptly discontinuing hormone therapy, and women were turning to other outlets, other providers, and there was a lot of mistrust in the medical system at this time. This allowed for the exponential growth of an unregulated, non-FDA approved compound hormone therapy industry. Women were again, facing a lot of confusion. At UCSD, we decided to start our program as a place where women could get evidence-based information that was not biased or not commercially biased. But we only had two providers, the MDM and a nurse practitioner.

Clearly, we had a big access issue. Part of the problem why we had so few providers was at that time, there was low incentive for other providers to see menopause patients. Many providers were risk averse. There was a black box warning now in hormone therapy products that made many providers concerned about prescribing and also scared many patients away from using hormone therapy. What was once a straightforward visit to talk to patients about the benefits of hormone therapy now became a very time consuming visit where we have to talk about weighing risks versus benefits and trying to explain the WHI findings to the patients. These long lengthy visits were not very well reimbursed. Flash forward to now, and we have the pendulum has swung back, and we have menopause in the mainstream.

So why now? I think it's a confluence of a variety of factors happening around the same time, like in the past five years. We have the rise of social media and influencers, including even physician, social media influencers guiding women about menopause or trying to. We have certain celebrities going through menopause at the same time and being very vocal about their experiences, especially not finding the care that they needed easily. We have a development of a FEM tech industry such as digital apps and wearables. We have podcasts as a popular way for patients to get their information about menopause. With COVID, we had an increase in telemedicine visits and specifically the development of telemedicine platforms geared towards just taking care of menopausal women.

We had more investor interest once investors realized the lucrative demographic that menopausal women were. I think a turning point happened in 2023 with the publication of this article in the New York Times from the journalist Susan Domins entitled Women Have Been Misled About Menopause. This is a very well written article. If you haven't read it. It's a really interesting and well researched chronicle about what happened from the WHI, and then the fallout in the years later and what

happened in menopausal women healthcare. This article went viral and generated more than 3,000 comments. Many of them were women sharing their experiences, feeling dismissed about their symptoms or just being unable to find care during menopause.

Then the JAMA article in 2024 also was helpful. It was a clinical review of all the studies by the principal investigators from the WHI, reminding us that the WHI was never a study about young healthy menopausal women early in the menopause who were symptomatic, and that they specifically make a statement in that paper that symptomatic younger women should be offered hormone therapy, and that we shouldn't use the WHI results to hold hormonetherapy back from them.

Then we had a very important moment, too, in November 2025 when the FDA announced the removal of the black box warning from hormone therapy products. This was big progress and also, I think, has really opened up the minds of many providers for prescribing homones as well as many patients feeling more comfortable. What we have now is an even bigger demand of patients outpacing the supply of knowledgeable providers. Patients are against still. We have access gaps. They're facing long wait times, sometimes up to months to a year to see certain providers. We have patients then, again, looking for alternatives to fill the care gaps. They're going to the online platforms, which have been very helpful, I think, in filling the access problem.

But unfortunately, the virtual platforms are variable quality. They don't always have the best trained providers and most are commercially driven. You see women being told they need to take lots of extra supplements or pay for extra lab tests that they don't really need. I think there's a lot for us to do, I think, to improve the trust from our patients in the medical system with regards to menopause care.

At this point, I'm going to turn the talk over to Dr. Patill to talk about some solutions and how are UC Menopause Collaborative will come together to improve things. Thank you very much. [Applause]

Rajita Patil: Thank you. Dr. Macaulay rightfully highlighted this growing demand of menopause care and the consequences when the systems fall short. If we really want to close this access gap, menopause care really has to be delivered by frontline clinicians and not just menopause specialists. After this, the menopause care in general cannot be considered optional anymore. In California, menopause care legislation is underway and moving forward towards this being a routine expectation for patients that are being seen that are 40 years and older, and this is likely to go through in the next six months. The clinical reality is that doing this in a 30-minute visit is really difficult because, number 1, there's a huge training gap because of the WHI and many other institutional neglect in the specific area.

There's not enough clinicians that really know enough about how to manage menopause. The other issue is that providing this good care really it brings up quite a bit of a cognitive load for clinicians. In a 15-30-minute visit, clinicians are expected to manage a multi-system, multidimensional transition, address comorbidities and opportunities for prevention and early intervention to prevent chronic disease, and sometimes compete with other pressing priorities that bring them into the office. This is all within a framework that doesn't exist. There's no really provider decision support tools or clinical frameworks that really help people or clinicians manage this care in a 30-minute visit.

Now, add to that, we have repetitive counseling that's happening, administrative burden, financial disincentives. This is not a procedure care visit, procedure oriented visit, and we're also spending a lot of time combating that misinformation. This workload really becomes unsustainable. I would say that lack of training is one big issue, but this is a really big clinical reality that is not really helping or wanting providers to address this issue. How do we actually then solve this?

The first solution is really around that training. We do need to expand training for our current workforce, and there's a concept called education percolation, and this idea is really embedding training directly into the workday rather than relying on clinicians having to go out on their own diamond time to get this essential training. It's very important that we do this because we really cannot rely on those specialists. We really need the frontline adequately trained up. We need to teach this within a clinical workday. We need to provide accessible CME options and use peer champions to diffuse the education across the system and integrate learning into documentation and

clinical care tools. This will allow us to really expand the clinical workforce that exists right now.

Just as importantly, we do need to invest in our future pipeline and invest in training our trainees and so that this becomes a core knowledge rather than an optional training. The second solution is really based on that systematic infrastructure to really make this care feasible. We really need multidisciplinary support with referral pathways and shared frameworks for this multi-system care. We need standardized workflows to provide equitable care and to really decrease that cognitive burden, as well as get rid of that implicit bias in the actual office. We want to embed EMR decision support tools to help stratify all these different clinical symptoms as well as the entire body system that's affected by this transition.

We need flexible care pathways like telemedicine and group care to help clinicians give care in a better way that is not having them repeat things over and over again. We also would benefit from inter visit, patient navigation, and asynchronous care delivery. Giving patient resources for in between visits so that we're not spending as much time in the office.

Now, at the center of this is really standardization. It not only reduces that cognitive load, but it really creates that consistency and safety and also creates research ready data. Then the third solution is really thinking about how care is delivered. At the foundation, like I mentioned, we need the generalized care. That's really how we're going to reach that population demand. But then we also need to include the direct to patient models that exist to help at the front line. But neither of these on its own will really address the complexity of menopause care. We really want to be thinking about the Hub and Spoke model, where the central hub is the menopause specialist in menopause programs for the complex care that's interdisciplinary.

But then the frontline clinicians managing most of that low risk care. Then this needs to be delivered with flexible pathways to make them scalable and person centered. In-person, telemedicine, one-on-one group care, hybrid and asynchronous models. I want to shift to how this could work in practice. We built the UCLA comprehensive menopause program with these things in mind. Our goal was to really deliver evidence-based, individualized whole person menopause care to optimize health now and in the future for individuals. This program was intentionally designed to address care gaps, both clinical care but also education research and address policy. How did we do this in 30 minutes? This really led us to the creation of MAPS, the menopause assessment and pathway support system, and this is our infrastructure solution.

MAPS utilizes 11 UCLA comprehensive menopause program developed evidence-based organ system and symptom-based algorithms in various areas like sleep, bone, mental health, cognition, heart health, etc. This turns the complex data into a simple red, yellow, green type of structure for risk stratification. MAP starts before the visit. Patients complete a structured online questionnaire that integrates the patient's EHR data and then runs it through these algorithms to generate this whole person snapshot with risk stratification in all these different areas. When I walk in the room, I already have an understanding of the menopause symptom burden and the cluster burden that they're experiencing, their eligibility for hormone therapy, areas for opportunity for prevention and early intervention to prevent chronic disease, lifestyle genetic factors, and importantly, patient preferences, so that when I'm in the visit, it shifts from data gathering to really instead contextualizing and interpreting and providing those guided recommendation options and then utilizing shared decision making within the room to come up with that personalized care plan within 30 minutes.

We also utilize standardized notes and order sets to help us complete that documentation in a really efficient manner. Then MAPS also connects to all the different care pathways that we mentioned. What's really interesting is that MAPS has really served as a dynamic learning system. Each use really reinforces best practices, builds pattern recognition for the clinicians, and increases our own confidence. Over time, it does many things. It allows us to provide efficient care and a one-stop solution in 30 minutes, but it also works as a training and education system not only for the current workforce, but actually, even for our primary care providers that read our notes and also our trainees. This works because it sits within an interdisciplinary system.

At UCLA, that includes core menopause providers that are all menopause certified and over 30 collaborating specialists in many different specialty areas, trainees, allied health professionals, and operations staff. The clinicians are not managing this complexity alone, and they're supported within

this connected system. This entire network is actually who created those algorithms. This slide really shows how investing in that education percolation really drove the growth and capacity. In one year, we expanded from 3-7 providers and reached 1,200 patients using MAPS. By years 2 and 3, we added more menopause providers, expanded sites, and reached over 3,500 patients in one year.

Now we're expanding into primary care with a planned menopause fellowship in the next one year. This isn't just really about the training of the individuals. It's really the people that are coming on board because they're starting to feel more competent. When we look at CMP patient volume at UCLA compared to the other UCs, when we have such a structure, we can see that it is accelerated. At UCLA, which is shown in the green, visits increased by 55% after the CMP launch in August of 2023, compared to 19% prior years, and now accounts for over half of all menopause care delivered across the UCs. This is just striking because we know that structure does make a difference, and so having the workforce capacity, the infrastructure, and the care modeling align, we can see that access grows.

UCLA was a proof of concept, but what we really are now doing here is that we've created this UC wide menopause collaborative one year ago so that we can actually do the same thing at these other UCs. It's a shared effort to really standardize clinical care, expand access to care, and engage in those research and educational initiatives so we're not all starting from scratch, and we're trying to help each other. We did receive some state funding, and so state has recognized this as a priority through a $3 million one-time allocation given out last fall. Funding was distributed across the UC academic health centers to support the establishment and expansion of menopause programs modeled after the UCLA CMP and under the direction of menopause experts.

This slide just shows how the collaborative could ideally be organized to enable that scale. At the center is that coordinated hub currently by the UCLA CMP surrounded are the key functional pillars of clinical care, research data and evaluation, education, and workforce development, and community and policy engagement, along with governance structures to ensure patient and community voice and data standardization across the sites.

Then at the foundation, are all of the UC campuses operating within their own environments, but connected through this shared framework. The goal is alignment with flexibility where each site builds in a way that makes sense for them. At UC San Diego, we're starting to see how this model can support organic growth of an existing program. Over just the past one year, aligned with the formation of the UC menopause collaborative and supported by the state seed funding, the program expanded significantly. They now have a growing team of providers across the OB/GYN and primary care spaces, expansion into multiple clinical sites, increasing numbers of menopause certified providers, and a strong collaboration of interdisciplinary specialists.

Importantly, they've also built structured educational opportunities and a program coordinator role. Moving forward, as we think about the full UC wide effort, these are some of the key clinical priorities across the UC Collaborative. First, we want to continue developing that core infrastructure with the trained menopause providers and the key specialists and really getting the operations staff that's needed to create these programs.

We also want to scale this infrastructure using maps across the UC system. That map system just got embedded into the Epic system at UCLA. The idea is to get a turbocharge package to be able to provide it to all the UCs. Third is building a UC wide clinical dashboard using UC centralized data warehouse and CDI2 partners, so we can really track access patient reach and optimize quality metrics and research. Research is also a major opportunity for us as a collaborative. As we know there's a opacity of research in this space. There's less than 2% of the NIH dollars go into this space, and so our goal is to really build a UC wide menopause research registry to collect standardized longitudinal data across sites, and MAPSS really allows for this research ready data to be captured.

Second, we want to focus on validating the MAPSS implementation across the UC system, so just not as a clinical tool, but as a scalable model across the US. Then we also are focusing on education because it's very key to being successful. We want to develop standardized didactic modules for medical students and residents so that it becomes part of the core training across all the sites. We're also thinking about a UC wide journal club, something like what the family planning community does, where trainees and clinicians get to learn together and bring important cases and share them.

Then finally, this UCLA Menopause Fellowship, the idea would be to grow that to become successful as a UC wide initiative. Stepping back, we've identified this problem, we've tested a solution and seen how it works at UCLA, and it's been wildly successful, and now through the UC Collaborative, we really want to and with, I would say, institutional support, with state support and funding and alignment across the UCs, we really want to scale this across the system and really move from fragmented care to equitable, accessible, and trusted menopause care across California. Ultimately, the goal is to serve as a model for the US. Thank you very much. [Applause]

Kathryn Macaulay: [inaudible] I would like to, of course, emphasize a little added piece would be incorporating research programs into the, for example, we do these sleep and light interventions for hormonal induced circadian rhythm disturbances to improve mood and sleep. Many women do not want to take hormone therapy, or they do not want to take long term psychotherapy or take antidepressants, and so integrating into the clinic would be, I think, advantageous for both the patients and help expand different options.

Rajita Patil: I think it's important to think about the fact that when we create these menopause programs, it's really not all about hormone therapy. There's so much more to this than just hormone therapy and integrative medicine techniques, specifically, we have a whole arm on that it's a big focus of ours, cognitive behavioral therapy techniques, and also non-hormonal options. There's so much pharmacotherapy that's now available that's not hormonal, and so it's really about whole person care and providing options and really listening to the patients and seeing what is going to work for them or what speaks to them.

MALE_1: Great talk and fantastic work and important work. I was wondering if you guys could elaborate on how the MAPSS workflow could help tackle some of the issues regarding implicit bias and equitable treatment with regards to race, but also because of how diverse California's language barrier is.

Rajita Patil: Great question. Actually, one of the things about MAPSS, Number 1, is that because it's standardized, it does help with providing equitable care, getting rid of that implicit bias. It's very standardized of workflows. However, it still allows for flexibility. When you're talking to the patient, it's not super rigid that way, but it's having every single person going through the same exact pathways really helps with that. But the issue around language, currently, so just to mention, the whole program that was built at UCLA was literally built without any money, [Laughter] so it was just literally a passion project of mine, and it really is something that needs more investment in order to do more even outreach, and right now, the people that are coming to us are mostly privileged patients because they know about the program.

They're able to hear about the program and get in. Most of them are English speaking, and so the next step would be with more funding and investment to have multiple languages, to bridge that digital divide, to be able to go do outreach into communities. That's why it's so important to partner with all the UCs because if we can have all many hubs and spokes and get out there and get as many Californians into our system as possible and share our resources, then we're more likely to be able to offer those options as well.

FEMALE_1: Thank you for the wonderful presentation. This definitely comes with more context, but when it comes to navigating the symptom assessment, and in 40s and 50s, I wonder what is a way to prevent such symptoms from increasing over time. I believe many women like our mothers and grandmothers have been through so much in their lives throughout the life cycle, and that attests so much to why those symptoms have increased so much and how that could worsen menopausal symptoms. What is a way to educate younger women and help them not have such symptoms elevated over time to the point of chronic disease risks?

Kathryn Macaulay: One thing is to start educating women earlier and starting in their 40s to talk about perimenopause. That's the menopause transition that can last for several years. Starting that education early, for sure. Maybe reframing the symptoms, there is actually, believe it or not Level 1 evidence supporting the use of cognitive behavioral therapy for vasomotor symptoms for hot flashes. Maybe helping women reframe the experience and the symptoms and to emphasize that it's not always a negative experience, but I think setting women up with good education on what to expect early before these changes start is going to be really important to help them navigate.

Rajita Patil: I will just add that there is legislation that passed around public school systems having menopause included in the curriculum. That's huge because, there's so much emphasis placed on the one book ends of the reproductive lifespan, and everybody is getting education around puberty and reproductive years and pregnancy and contraception, but there really is no education place right now, and that's part of what the governor's proposal is putting in, is that anybody over the age of 40 within the routine visit this has to be addressed. We'll find out in a month if it passes. He's vetoed other things.

Let's see, but the other piece of it is the legislation that did go in for the public school curriculum, at least. My daughter actually is in private school, but she did a survey of 800 private schools in California, asking who knew about this legislation and who actually is changing the curriculum, and private schools wrote back being like, why would we even talk about this? There's a lot of work that needs to be done policy wide, but also it really does start with the clinicians in the visits, primary care, even pediatricians, and OB/GYNs really being comfortable with talking about it and really, helping people feel comfortable to even ask questions or talk about their symptoms.

There's a lot of public awareness happening right now, so a lot more. I'm going to be honest. I think women coming into the offices is what's making the change happen right now. They know sometimes more than the doctor does, which is really hard to hear, but it's actually really true, and they're the ones making the reforms happen.

MALE_2: That's a beautiful effort. I really appreciate you persevering despite the lack of funding. I'm sure everybody in this room probably has the experience of women's health being hard to fund, but that's fantastic. Drifting on that last point, in fact, a lot of women are starting to share on social media. A lot of women are trying to figure out phenotyping or which symptoms correlates to which later symptoms in terms of aging. I'm wondering if you guys are generating a useful dataset then through your effort to try to establish both the reality of these things in a medical record, part of training as you're doing, but then also whether there isn't some participant-led part of that, trying to match this with later life symptoms or cultural differences, dietary differences, all these things so that we can start to maybe think about predictive models of who's going to go through what kind of menopause.

Rajita Patil: Absolutely. That's the beauty of what we created, I couldn't go into a lot of it, but it's extremely extensive questionnaire that asks about APO, like adverse pregnancy outcomes. It asks about lifestyle practices, even what do they perceive their stress level as? There's so much in there, even around their support system. We are collecting. We have over 4,000 patients now in our dataset, and just imagine if when we partner with all of our UCs, what data is going to be there that will really help to answer some of these questions? We know there's some high risk phenotypes. For example, one of them is patients that have PMDD. We know that they experience menopause transition in a much more severe way.

They're more sensitive to hormone fluctuation, but there is some data that we just looked at that says that even if you have an APO, any adverse pregnancy outcome, they experience menopause four years earlier. We just did a huge study that we just put in for nature medicine. We'll see if they accept it, but it is huge. We're seeing a lot of different things now, and the problem is there's just not a lot of research out there, and so I think that even just having retrospective reviews and looking things longitudinally, retrospectively and prospectively, there's so much we can answer with a UC wide registry.

FEMALE_2: I think we have one more question. I wondered a couple of things. In terms of the HRT, I know, I'm over here. [Laughter] Actually, I know I'm the photographer, but this has been something I've been researching a lot because I'm going through menopause and a lot of friends too. I wondered, given the changes with the HRT and the perspective on it, one, do you think it will ever fluctuate back as a negative because everyone's jumping on the bandwagon that this is the best thing in the world, and I'm sold. But then I have a history of breast cancer, as do many of my friends. Sorry, it makes me emotional. You find yourself in a Position where you feel like you can't help yourself, because a lot of the practitioners are also, really afraid to prescribe these things that you're told are the things that will help your body long term as you age.

I found a number of people, including myself in a position of, you can't do HRT. I was curious to hear about these other things and it's very hard to find practitioners who will take you on or make you sign

a waiver before they even give you advice. How do people with those scenarios move forward, or is there a way to educate people even settings like this where you're not doing this -on-one, but you're reaching wider audiences?

Kathryn Macaulay: I'll take you on as a patient, but you bring up a good point, and I'm sure I'll have you talk about it, too. We're all experiencing it in the menopause world and that the message is so strong right now. When I mentioned the pendulum swung back, it really swung back. Women are getting this message that if maybe they even have contraindications or shouldn't be using hormone therapy, that they feel like they're really missing out. It's sad to see that because I think there's many different ways, as Dr. Perry brought up, too for treating mood disorders. There's light therapies, there's cognitive behavioral therapies many different non-hormonal interventions. I encourage patients that have more complex history to try to find a menopause specialist.

We were talking about having more GPs and PCPs doing the low risk care. There's definitely a place that's what we're here for to help you sort through exactly what your symptoms are. I work a lot with the oncologists, too, for my breast cancer survivors. I have discussions with them. It's not just a discussion with me. We can talk together, especially through Epic, being connected and help patients make the best decision for themselves, but it really is a very individualized decision about what to do, but I wouldn't panic if you can't use hormones. Many women didn't for years and are fine. Not all women take hormone therapy. We have a whole new class of medications to treat vasomotor symptoms that are targeted therapies in the brain, neurokinin receptor antagonists that are very effective.

The oncologists love them. If vasomotor symptoms is the problem, there's other therapies there. Then vaginal estrogen can usually be safely used by patients who are breast cancer survivors. For the genital urinary symptoms, estrogen is not off the table as a localized therapy.

Rajita Patil: I think that the message the message is hormone therapy fixes everything. It's great for prevention of heart disease and brain disease. That's the wrong messaging. This is a lot of misinformation out there. Truthfully, all we have data for use is really for menopause symptoms and really for vasomotor symptoms, there's some promising data for mood. Really not as much for sleep, but if we help vasomotor, then it helps everything else. It helps just like we showed that interconnected web. The thing is, it's really for menopause symptoms, and sometimes people come in with contraindications, and they're thinking they're missing out on prevention for long term disease, and so it's a lot of that education that's really important.

These options that these antagonists, these are amazing. They don't only just work for vasomotor symptoms. The latest one that just came out actually really targets sleep and mood. There are some promising activity out there, and there are so many different ways to manage this, and so this is exactly the thing that we need to see as a complex menopause provider, and so advocating for yourself, finding the right provider, I would stick with a menopause certified specialist at an academic setting, not just out there because there's a lot of those out there and they've gone rogue. [Laughter]

FEMALE_2: Thank you so much. [Applause] [Music]