SPEAKER 1: What about primary and secondary stroke prevention? Well, as you can see, we're not doing a good job. Both providers, practitioners, as well as patients. So women are less likely than men to meet both the blood pressure goals as well as LDL cholesterol goals. And they are also left likely to be discharged on statin and antithrombotics.

When it comes to decision making, it's quite interesting to notice this difference. Women are less likely to choose intravenous tPA than men. What is the therapeutic window for this sort of decision making? It's 3 to 4.5 hours from the time of symptom onset.

So imagine the scenario. You are in the intensive care unit or you are in the emergency room where the patient is. You are talking to the patient or the loved one asking them to make a decision about an agent, which is a clot busting medicine that also has a pretty significant side effect, which is bleeding in the brain. The decision has to be made in a time sensitive manner. OK. Otherwise, you will not qualify.

So they're less likely to choose IV tPA. However, no difference in choosing carotid endarterectomy. Why is that? So there is some theory behind it. How far of that is true? We don't know. But the authors of this study, this is a Canadian study by Kapral et al, they concluded that women may require more information prior to consent to therapies such as tPA where time sensitive risk taking must be acknowledged during the consent process.

So it is important that you have either pre-printed small cards for consent process. Visual graphics. Use things that can help women make decisions if you want to minimize this difference. But it is studies like this that highlight these differences or issues in consent process. They are not necessarily getting less tPA because they're not given. They're not offered. They're choosing not to, especially in the study.

This is a different study by Madson, et al in 2015 that showed that eligibility for tPA was similar both in men and women. However, women were less likely to be treated than men because they presented with severe hypertension. Of course, you can control that if you are planning to give the patient tPA. But again, this difference is important to notice.

I'll switch gears here going beyond stroke treatment when talking about disability and stroke recovery, how do women fare when it comes to living with disability after having a stroke? In this study, which looks at quality of life after ischemic stroke in four different domains, so you're not only talking about mobility you're also asking the person are they able to participate in the activities that they used to, do they have depression? Are they having pain and discomfort?

So what did this study show? Actually, in three months after the stroke and that continued 12 months beyond the initial stroke, that women have worse quality of life than men. Actually, more in this slide I would go in more detail in trying to understand where could that difference be. Is it just that women are more disabled? Is it just a perception? Is it a position perception? The person who's asking questions?

So this is a study, Northern Manhattan Study, that highlights the self-reported symptoms. So a woman in the highest functional recovery category are reporting less recovery and a greater need for help than men in the same category. Depression was associated with need for help. Why is it important?

Do we only look at quality of life measures as we see it? As we check those boxes? Or we look at our modified ranking score and say the patient is independent. Patient is able to walk independently. All right? [INAUDIBLE]. Patient is doing great.

Or when we talk about precision medicine do we incorporate assessment that also gives us a sense of how is the patient feeling? You fixed the problem. Is the patient back to normal? Based on the two slides that I showed you, there is definitely some discrepancy. So we do need better assessment-- our outcome scores and scales.

We have quite a few. We probably need to refine these. But unless we do studies like this, these points will not get highlighted. This is my summary slide. And hopefully, I have convinced you that stroke risk and outcomes differ in men and woman. Stroke risks should be re-evaluated with risks unique to women.

There are worse outcomes in women that are not entirely explained by older age or co-morbidities. More research is needed to understand the biology of sex differences both in stroke risk and outcome. And I'll end here and take questions.

By the way, that card, which is probably not projecting very well there, you can find that on American Heart Association or American Stroke Association website. Women face higher risk of stroke. This is actually a very nice graphic that you can use in your practice when you're talking to other individuals in your group. Like I said, it didn't project very well here. But it has all the statistics, and it's all quite accurate based on the latest guidelines.