

## Next Steps: Blood Test for Alzheimer's?

By Jan Warner and Jan Collins



**Question:** Over the past several years, my mother, now 83 years old, started becoming increasingly forgetful – leaving the oven on, locking herself outside her house, losing her car keys, getting lost near her house, and so on.

My sisters and I took her to her family doctor who gave her some cognitive tests. Although he said that the results were inconclusive, the doctor told us Mom “might” have Alzheimer’s. But he didn’t put her on any medication. Mom isn’t much worse today, but she’s not any better, either. I don’t want to take her back to the family doctor because I don’t think he was very attentive to Mom the first time around. What are our options?

**Answer:** While cognitive testing is only one tool in the diagnosis of the cause of memory loss, today, the only definitive diagnosis of Alzheimer’s can only be made after death by an autopsy – hence the hesitation of your Mom’s doctor to make a diagnosis.

But the timing of your question is good because just a few weeks ago, the media was buzzing over reports that a blood test has been developed by researchers that may be able to predict whether mild memory lapses could be an early sign of Alzheimer’s disease.

According to a paper published in the British journal *Nature Medicine*, an international team of researchers — based mainly at Stanford University — discovered that 18 proteins found in the blood predicted whether a person would develop Alzheimer’s disease with 80 to 90 percent accuracy.

If these proteins can be used to predict the disease two to six years before the onset of the disease, it would help patients plan their lives – and their estates. While more research is necessary, experts tell us this blood test is a promising development.

There are other developments in this area, as well. NextSteps talked to Dr. Ira Goldknopf, director of proteomics [the large-scale study of proteins] at Power3 Medical Products, Inc., based in Houston, Texas. Dr. Goldknopf has nearly 40 years of proteomic experience, including ten years on the faculty of Baylor College of Medicine and a year at the Medical Nobel Institute, Karolinska Institute, in Stockholm, Sweden.

Goldknopf said that Power3 has discovered 59 neurodegenerative protein biomarkers in the blood whose concentrations can be monitored to diagnose Alzheimer’s, Parkinson’s, and ALS (also known as Lou Gehrig’s Disease). The company has already tested 750 patients, and is “ready for commercialization” of the blood test, he said. The first step, which is expected shortly, is to make the test available to physicians, who can order the tests for their patients and then send samples to the Houston lab for analysis.

But, we asked, since there is currently no cure for Alzheimer’s, Parkinson’s, or ALS, why would people want to have the test done? Because in the case of these diseases, “ignorance is not bliss,” says Goldknopf. “The sooner you intervene, the better. By the time you diagnose

these diseases by cognitive tests – and it’s a lengthy process – [the patients] have already lost a lot of their brain capacity.”

How about genetic testing? That, says Goldknopf, can only tell people if they have the *tendency* to develop these diseases. “[Having the gene] doesn’t necessarily mean that you’ll get the disease.” But with protein biomarker blood testing, “you can see the disease beginning to occur, and you can mark its progress.” This would be invaluable during clinical trials of drugs that might be developed to combat these neurodegenerative diseases, he said.

So we’d suggest that you find a specialist in your state in neurodegenerative diseases, such as Alzheimer’s, and talk to that doctor about whether these new blood tests would be useful for your mother. This might provide valuable information, and give you and your sisters some idea of what to do next.