

**Ryan Bender, Pharm.D., Supervisor, Investigational Drug Services, Carolinas HealthCare System**

Q: Can you give us an overview of a trial and drug you're working on specific to Alzheimer's?

A: For many years, we've had some options available for Alzheimer's disease to treat some of the symptoms that we see with Alzheimer's, but it's really temporary. We haven't had a lot of great options that address that underlying issue of the amyloid plaque buildups that can cause some of the major symptoms with Alzheimer's disease. I think some of the research currently that's going on around the world is focusing on preventing the buildup of those amyloid plaques.

Q: What work is being done to either prevent or slow down the progression of Alzheimer's?

A: Dr. Oleg Tcheremissine is currently doing a clinical trial with the drug crenezumab, and the crenezumab actually addresses some of the specific peptides that are found in the amyloid plaques that are building up and causing the Alzheimer's disease. That crenezumab can actually take those peptides and hopefully move them out of the brain to prevent those buildups and therefore the progression of Alzheimer's disease. The focus is on the earlier stages, the prodromal and the mild Alzheimer's disease, so that we can address that before the buildup really occurs and we have more of the more advanced stages of Alzheimer's disease that we're seeing.

Q: What's unique and different about this trial with the crenezumab compared to other clinical trials that you might have worked on in the past for Alzheimer's?

A: We're trying to the buildup of the amyloid plaques and really trying to prevent that and addressing that issue to slow the progression. That's how this trial is a little bit different than what we've seen in the past. Then also doing it in a way where the infusions are well-tolerated for the patients, so that they can continue getting the infusions on a frequent basis and hopefully slow the progression of the disease.

Q: Are you hopeful that this line of treatment for Alzheimer's disease might be different?

A: Yes, I think with any clinical trial we're hopeful that the treatment option that is being provided by the clinical trial will be beneficial to the patient and safe. At the end of the trial, whether the treatment option is better or not, it'll at least give us some answers to better understand the disease and what treatment options may help or may not help.

Q: How are you connected to Alzheimer's experts and this clinical trial?

A: Our Investigational Drug Services Department manages the investigational drugs as part of these trials. The requirements for managing those investigational drugs can be extensive, having to do with how they're stored and prepared. Some drugs they require specific IV tubing or bags with specific plastics. They might require a different type of inline filtering if we're transporting them to different physician offices and infusion centers across the system. There may be specific requirements for temperature monitoring and chain of custody. We manage all of those aspects of the investigational drug so that our physicians and our study nurses can focus on the other important aspects of patient care.

Q: What's your personal connection to Alzheimer's?

A: I think Alzheimer's disease can have such a significant impact, not only on the patients themselves, but also family and friends and caregivers that support that patient. Most people that you run into have at least had some sort of experience with Alzheimer's disease in their family or with a friend. In our situation it was my grandmother. I wish we had better treatment options for her whenever she was alive, so that's what we're looking for with these clinical trials.

We deal with a lot of different clinical trials here in a number of disease states and a lot of us have personal connections with some of those types of trials because we've seen it in our own lives. We care for these patients even though we're behind the scenes often, either mixing the drug or behind a computer screen entering orders. There's still that connection to that patient, and we feel privileged to at least be part of the system to allow those investigational drugs that may not normally be available to everyone but are available to patients here at this site.

Q: What's special about the people participating in these trials?

A: I think our clinical trial patients themselves are remarkable people. They make a large commitment both in effort and time to be a part of these clinical trials. It's often much longer visits, more visits more often, additional lab work and additional scans to be part of this clinical trial. That's tough both for the patients and the caregivers that are bringing them to the appointments and sitting with them during the infusions. I think one of the most remarkable things is why they say they're taking part in this clinical trial. Most often we hear that they want to participate in the clinical trial to help future patients that may have this disease and give them the answers and better treatment options down the road. I think that's a pretty honorable way to look at participation in clinical trials.