

Chairman Edwards, Vice Chair LaRe, Ranking Member Sweeney, and all members of the Ohio House Finance Committee, thank you for giving me the opportunity to present testimony on HB434, The Traumatic Brain Injury Treatment Accelerator Pilot Program (TBITXL). My name is Caroline Conway, and I am a speech-language pathologist at an inpatient rehabilitation hospital in Cincinnati, Ohio.

I work with adult brain injury survivors during the acute phase of their recovery, immediately following medical stabilization. This is when patients start to understand and cope with their diagnosis and its impacts on their lives.

As a speech language pathologist, my role focuses heavily on managing the cognitive-communication deficits of brain injury, which include areas such as information processing speed, attention, memory, social cognition, and language. These skills are essential for completing basic daily tasks, including engaging in conversation, remembering information, and completing self-care. Many brain injury survivors experience significant attention and memory deficits, which can result in agitation and confusion. This confusion can often persist for months following the initial injury, limiting progress with other higher level skills. Language and pragmatic understanding are also frequent deficits among brain injury survivors. Survivors often have difficulty with word finding, as well as understanding social cues, humor, and social behaviors that drive our interactions. People with brain injury struggle to comprehend how to adjust to different social situations, how close to stand to other people, and what is considered appropriate or inappropriate in various scenarios. This results in poor engagement with the outside community, increasing feelings of isolation and loneliness. Similarly, survivors are often unable to hold jobs due to impaired social cognition. Cognitive deficits are one of the most profound concerns for brain injury survivors, and without effective drug therapies, survivors are often left with persistent difficulties in thinking, which impacts all aspects of daily functioning.

In addition, as a speech language pathologist, my role involves the assessment and treatment of swallowing disorders. Immediately following a brain injury, many survivors are in a coma and unable to eat or drink. When they wake up, the swallow musculature is weaker and individuals are typically unable to tolerate an oral diet. Feeding tubes that go through the nose or directly to the stomach are often used as intermediate means of nutrition. Following brain injury, the neural pathways that control our swallow safety and efficiency are often impaired, resulting in food and drink going down the wrong way, into the lungs. This can lead to a potentially deadly infection known as aspiration pneumonia. Aspiration pneumonia can cause trouble breathing, fevers, use of supplemental oxygen, and longer hospitalizations for brain injury survivors. As survivors recover, the speech language pathologist administers assessments to determine if and when oral nutrition is able to be resumed safely. By funding research to alleviate brain injury at the source, survivors are able to improve their overall physical health as well as participate in the shared experience of communal dining.

The long term consequences of brain injury are often felt for years to come, and due to a lack of community and social support, survivors and their families often experience

these consequences alone. Along with my colleagues, I help run a brain injury support group for the greater Cincinnati area. This experience provides much needed socialization and encouragement for survivors of all ages and backgrounds. Attendees are a combination of current inpatients at our hospital and survivors that have discharged into the community. Topics include physical and emotional wellness, goal setting and memory strategies, and community resources. This group is essential to ensure that survivors and their families have a place where they can connect with others to empathize about the chronic impacts of brain injury.

Research shows that the more significant the brain injury, the more likely the patient is to have more complex hospitalizations, physical and cognitive deficits, and adverse outcomes. Because of this, research is essential in developing drug therapies that can alleviate the physiologic impact of bleeding in the brain to tackle the long-term effects. Early and active medical management of brain injury is essential, and improvement of symptomatology is not merely related to the passage of time. The funding of research to develop, trial, and ultimately implement drug therapies can critically reduce time spent in the hospital, the immediate deficits related to brain injury, and their sequela. Sequelae of brain injury include difficulty socializing, maintaining a job, relying heavily on family support due to decreased independence, repeated hospitalizations due to a range of medical complications, and significant financial burden. While traumatic brain injuries are frequently highlighted in the media, there has been minimal progress in addressing the root cause of this issue. Developing treatments not only saves time and money but is also crucial for improving outcomes. In my speech therapy practice, many patients can manage symptoms and compensate for brain damage, but full recovery remains elusive for most. Integrating speech therapy with targeted therapeutics has the potential to substantially reduce their recovery period and restore the life they once knew.

Chairman Edwards, Vice Chair LaRe, Ranking Member Sweeney, and all members of the Ohio House Finance Committee, thank you for your time and consideration of this bill. I can answer any questions you have for me at this time.