Members of the Committee and Audience,

First, I want to make clear that the words below reflect my experiences and thoughts and do not in any way represent or speak for the institution or medical division for which I work.

The first time I heard the term “Zaza” was after arriving for my shift in the Medical ICU. The overnight team told my team that they had admitted a patient for Zaza withdrawal. We all laughed a bit at the ridiculous sounding name, and the night team shared the little they had learned about it, namely, that it was a mood-enhancing energy supplement sold at gas stations with an active ingredient called “tianeptine.” Then they turned the patient over to our care.

When I went to assess my patient, I found a man who had lost all connection with reality. A flood of words was pouring from his mouth, but they did not make any sense. He was extremely agitated, picking at things as he writhed in his bed. He was also suffering from visual, auditory, and tactile hallucinations. In sum, the man withdrawing from the funny sounding “energy supplement” had the worst case of delirium I have ever seen, and suddenly my team and I found ourselves taking Zaza far more seriously.

Part of the challenge we faced was that we did not know *anything* about Zaza, so we hurried to learn what we could. We learned that tianeptine is used as an antidepressant in many parts of the world, and although its mechanism of action isn’t entirely clear, what is clear is that in high enough doses, it acts on mu-opioid receptors in the brain. In other words, in doses like the ones my patient had been taking, it has the exact same effects as a narcotic like oxycodone. That is the hook hidden in a bottle of Zaza, with each capsule having a slight opioid effect that can drag an unsuspecting user into the chains of addiction.

However, unlike oxycodone, tianeptine also has other effects as well. Though structurally similar to tricyclic antidepressants like amitriptyline, tianeptine seems to act more like ketamine, which modulates the excitatory pathways in the brain. This at least partially accounts for the severity of my patient’s psychosis, although there was also another piece. My patient had been taking Zaza Silver. In addition to tianeptine, Zaza Silver has a drug called “phenibut” in it. When we researched *this* drug, we found it is used as a tranquilizer a number of former Soviet nations. We also found that its effect on the brain is similar to that of the medication baclofen, a muscle relaxer that can also have profound withdrawal effects if abruptly stopped.

What we learned about these drugs helped inform our treatment. We put my patient on a morphine drip while giving him medications such as valium, baclofen, and antipsychotics. That is a group of *very* powerful medications, and *that* is what it took for us to replace the Zaza he had been taking. And I want to stress this point: the fact that we were able to put my patient on a morphine drip shows how addicted to opioids he was thanks to tianeptine. We cannot safely put a non-addicted person on a morphine drip without intubating them because they may wind up so sedated they stop breathing. Not only was my patient not sedated on a morphine drip, he required *additional* medications to keep him calm.

After several days of weaning these medications, my patient's delirium cleared up and he was able to leave my ICU and eventually discharge from the hospital. Unfortunately that was not the last time he has been in my ICU for Zaza withdrawal, which shows the power of the addiction. His journey has been fairly typical for recovery from addiction: it has been hard, stumbling, but moving forward.

The night after I met my patient, I stayed up far too late learning about Zaza, and the more I learned, the more shocked I was that such a thing can be purchased at some gas station or vape shop. Looking over what I have written above, I have justifiably likened Zaza to medications such as oxycodone, ketamine, and baclofen. Here in the US, each of those medications requires a prescription to obtain because of the very serious risks associated with their use, and yet anyone can go purchase tianeptine—with or without phenibut—at the same place they would grab a Gatorade. I would advocate for changing that policy.

Aaron J. Lerner, MD
Pulmonary and Critical Care Medicine