3/6/17

Members of the United States Sentencing Commission:

Thank you for inviting me to testify to this panel about the demands synthetic drug overdoses place on the first responder system, specifically, EMS and emergency departments.

In the late 2000's (2006-2008) Broward County, FL found itself at the epicenter of a major problem with prescription narcotics and "pill mills." Many users and dealers came to Florida and specifically to Broward County to find easily accessible and readily available prescription narcotic pain medications. Thankfully, due to changed State and Federal sentencing guidelines, the availability of these prescription narcotics dropped severely, causing a shift in the pattern of illegal drug use/abuse and sale. Unfortunately, though predictably, other drugs filled the void. Between 2010 and 2014, the number of crime lab cases involving synthetic drugs more than doubled from 4,000 to over 10,000 per year. Use of synthetic cannabinoids (fake marijuana), the cathinones (including MDPV/Molly, bath salts, and Flakka), and MDMA (Ecstasy) skyrocketed. Once again Broward County found itself in the crosshairs.

In response to a particularly dangerous cathinone, Flakka, the United Way of Broward County organized a community task force consisting of members of law enforcement, emergency medical services, hospitals, drug rehabilitation centers, and local community service organizations. This task force, which Captain Tianga and I were a part of, used its platform to educate people about the dangers of the synthetic cathinones and other synthetic drugs of abuse. By taking the initiative and educating all the pertinent stakeholders of the county we were able to decrease the impact of some of the more dangerous drugs and help get them off the street.

It is a fine line between users getting high from synthetic drugs, and overdosing. There is batch-to-batch variability in the strengths of these drugs and overdose is common. The reason these synthetic drugs are so dangerous in overdose situations is the effect they have on the human body. Synthetics are highly psychoactive. They change the users brain chemicals, causing them to think, act, and behave differently. These drugs can also cause physical damage including heart attacks, strokes, dehydration, rhabdomyolysis (a condition that results in severe muscle wasting), kidney failure, and death.

These synthetics the commission is hearing about today are for the most part very potent stimulants. They speed up and scramble normal body processes. They cause dangerous side effects that can bring users into the emergency medical system including: severe hallucinations, aggressive behavior, hyperthermia (high body temperature), tachycardia (rapid heart rate), psychosis, extreme paranoia, anxiety, incoherent speech, seizures, and agitation.

The additive effect of these symptoms can culminate in a medical emergency called excited delirium, which is a condition in which synthetic drug users cannot control their thoughts, actions, or bodily functions. It has been referred to as "The Superman Effect," because it causes users to feel they are invincible, they have superhuman strength, and they are immune to the various restraining measures law enforcement would use to control their behavior.

To combat these unpredictable and dangerous side effects of synthetic drugs, Broward County EMS departments had to be trained specifically on protocols involving use of medical sedatives such as benzodiazepines and ketamine to safely sedate synthetic drug overdose patients.

Due to the dangerous and complicated nature of overdoses in these patients a large amount of emergency medical and law enforcement resources are needed to help save these patient's lives. In our county, typical EMS crews spend between 15 to 30 minutes on common medical cases they bring to the emergency department. When the EMS crews attend to a synthetic drug overdose case, they often spend upwards of 40 to 90 minutes stabilizing and transporting these patients. This means crews attending to synthetic drug overdose patients are not available to respond to other medical emergency calls in their towns. This causes other surrounding city EMS crews to lend mutual aid and cover for those already busy crews. Basically, one synthetic drug overdose patient can have a far-reaching effect across several city EMS department resources.

Patients who are in excited delirium are dangerous to themselves and to others around them, including first responders. Excited delirium patients may need to be physically restrained by large numbers of law enforcement even before paramedics can begin life-saving treatment.

If the patient is successfully restrained and sedated, they are then brought to an emergency department. Continued medical stabilization and treatment in the ER is often necessary as some of the effects of these drugs can last in the system for several hours. These patients are often critically ill, with abnormal vital signs and life-threatening medical problems. They require a large amount of hospital resources, such as manpower, sedative drugs, monitoring, and sometimes hospital admission, all the while taking away those resources from others in medical need and often causing disruption to the entire emergency room.

The medical issues for these synthetic overdose patients continue even after their acute hospitalizations. Some are so addicted to the drugs they sign out of the hospital "against medical advice" so they can get high again as soon as possible, putting their lives in further danger and almost ensuring another visit to the ER. The patients who are discharged safely have a very hard time finding resources to get medical, psychological, and drug rehabilitation follow-up, making it more likely they will abuse these drugs again because of lack of support. Some of the patients who are seriously ill from drug overdoses end up with long-term medical issues. There

are many documented cases of synthetic drug overdose cases that result in longterm disability and illness such as stroke, end-stage renal disease (kidney failure) and dialysis, and psychosis and extreme paranoia. Many of these patients find group drug rehabilitation impossible due to the permanent brain damage and paranoia these drugs can cause. Relapse is very common.

From a societal point of view, synthetic drugs have hit the most vulnerable and poor populations the hardest. Since synthetic drugs are generally relatively inexpensive (\$5/dose is typical) they are marketed to and are widely available to indigent people. Many of these people have no insurance and no resources and cannot pay for their medical care if they overdose, or they are on a government program, and the costs are subsidized by taxpayers.

Once again, thank you for your time and I am happy to answer any questions.

John Cunha, D.O.

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