

## Dear Commissioners,

The currently posed question of when or whether the embargoed oil cartridges can be released for sale has at least two separate issues embedded. First is the question of the safety of these particular cartridges, and the second is the safety of any such cartridges that use current technology. Both of these questions would reasonably need to be affirmed prior to sales.

With regard to the safety of the currently embargoed products, we believe that current testing methods could reasonably be employed to ascertain the contents of the cartridges. It does remain unclear what agent(s) were responsible for EVALI, but the likely culprit, Vitamin E acetate, can be detected. Along with other regulatorily mandated testing, this would likely assure the safety of these particular products.

However, the larger question of the safety of these devices as a class remains. There is ample evidence that these devices, while popular, are NOT, in fact, safe. The issue is not simply what is in the cartridge, but also how the device, itself, works. These devices are simple and do not adequately, if at all, regulate the temperature that is applied to the contents of the cartridge. Even devices, like the PAX ERA, which purport to set the temperature do not measure the temperature, but rather simply estimate it.

Devices that do not adequate control temperature are not truly vaporizers, they are combustors. They produce a range of toxins and carcinogens that should be avoided for health reasons. These include Benzene, Acrolein, and Methacrolein which are highly toxic cancercausing chemicals that are produced at very low temperatures (1).

As a result, we believe that this entire class of device is dangerous and should not be allowed to be sold. Arguments to the contrary that suggest that these devices are safer than smoking are not backed by science – we have decades of experience with smoking cannabis (which we recommend avoiding as well) and almost no data to support these devices. Until there are devices that are smarter and have been shown to be safe from these chemicals, we propose that they be banned entirely.

It is of the utmost importance that the Commission not confuse these oil pen devices commonly called "vapes" with actual cannabis-flower vaporizers, as the Baker Administration

did last summer with their temporary ban. These flower vaporizers are smart devices that measure and monitor temperature properly and are the most effective and safest method of cannabis inhalation therapy. In banning the oil pen devices, the Commission should not erroneously ban these flower vaporizers that are a mainstay of medical treatment.

Thank you for your consideration,

Jordan Tishler, MD President, Associations of Cannabis Specialists

(1) Troutt, W. D., & DiDonato, M. D. (2017). Carbonyl Compounds Produced by Vaporizing Cannabis Oil Thinning Agents. *The Journal of Alternative and Complementary Medicine*, acm.2016.0337. https://doi.org/10.1089/acm.2016.0337