Assignment 8.1

As a medical cannabis user vaping was a quick and easy way to get my dosage of meds throughout the day. I could take a few puffs on the way to work and step outside or in a bathroom stall if I needed a fast dosage throughout the day. For me it was discrete because no one knew it was cannabis unless I told them. It was just enough to take the edge off my pain and allow me to continue functioning. The pro to vaping was the immediate action of the cannabis getting into the blood stream and bypassing first pass metabolism. This was an effective alternative during the day over edibles that would for lack of a better term "sneak" up on you after the cannabis has been metabolized.

In 2019 vaping was removed as a source of medical cannabis use in Georgia, my home state, and other states. There were several cases reported of people having lung issues that stemmed from vaping. The CDC issued a health advisory in August of 2019 stating that there were 215 potential cases from 25 states and more that were under investigation related to severe pulmonary disease associated with the usage of E-Cigarette products. By September 5th there were two deaths recorded that were associated with this issue. The symptoms that the patients were experiencing included shortness of breath, chest pain, abdominal pain, and cough. [2]

Electronic Cigarette or Vaping use associated lung injury or EVALI, is the name that was given to the lung issues that patients were experiencing due to vaping. Although the products used were not solely cannabis related some patients admitted that they were vaping cannabis. There is always a potential health risk when we use products that are unregulated and found on the street market. In researching the issue, it was found that a major cause of EVALI was vitamin E acetate which has been used in the cosmetic industry for a long time but was not considered for inhalation. The mode of toxicity related to vitamin E acetate is the disruption in the functionality of the fluid lining the surface of the lungs, it effects the permeation of lung gases, can cause lung cell death, and blocks the transfer of O2 from the air to the body. The actual vaping devices also play a part in toxicity. The coils that help to make up the mechanism cause the metals to penetrate the vaping solution when they are heated. When vaping, those metals are inhaled and end up in the alveoli. [1]

There are pros and cons to vaping. The ability to bypass first pass metabolism and get the medicine into the blood stream much quicker is a pro, but in contrast the additives like vitamin D acetate and metals make it unsafe. Ways to make vaping a safer alternative would be to regulate what additives can be put in a vape, make those vapes accessible and affordable to patients to avoid purchasing the street versions, regulating the temperature and creation of a heating element that is not made of toxic metals or find a safe substance to wrap the coils that will still allow conduction.

Resources:

[1] Dr. Ryan Pearson. MCST 603 Module 8 Presentations: Lectures presented via PowerPoint May 3,2021

[2] Elsevier. Vaping hazards: what are the danger signs and how can we prepare? Elsevier Connect. https://www.elsevier.com/connect/vaping-hazards-what-are-the-danger-signs-and-how-can-we-prepare?sf222060145=1. Accessed May 7, 2021.