



## A Position Statement on Electronic Nicotine Delivery Systems/Vaping Products

The American Society of PeriAnesthesia Nurses (ASPAN) has the responsibility for defining the principles of safe, quality nursing care in the perianesthesia setting. ASPAN also has a responsibility to monitor current healthcare warnings and advisories which may affect the well-being of the populations we serve. ASPAN, therefore, has a responsibility to monitor the status of potentially harmful effects associated with the use of electronic nicotine delivery systems (ENDS)/vaping products.

### **Background**

ENDS and vaping products are electronic devices that produce an aerosol that typically contains nicotine, flavorings and/or other additives. Users may inhale this aerosol into their lungs. ENDS/vaping products can also be used to deliver tetrahydrocannabinol (THC), the principal psychoactive component of cannabis.<sup>1</sup> ENDS/vaping products were first sold in the United States in 2007. ENDS/vaping product use has increased considerably in recent years, particularly with our young people. Among high school students, current ENDS/vaping product use increased from 1.5 percent in 2011 to 20.8 percent in 2018, and during 2017–2018, current ENDS/vaping product use increased by 78 percent.<sup>2</sup> According to a report from the Surgeon General and the U.S. Department of Health and Human Services, ENDS/vaping product use among U.S. youth and young adults is now a major public health concern.<sup>3</sup> Despite the growing popularity of ENDS/vaping products in the United States, there continues to be a lack of substantial clinical evidence to support substituting these products for smoking cessation or as a safer alternative to tobacco products. According to the Centers for Disease Control and Prevention (CDC), evidence is currently insufficient to conclude that ENDS/vaping products are effective for smoking cessation.<sup>4</sup> Adults should evaluate FDA-approved smoking cessation alternatives to cigarettes.<sup>5</sup>

Currently, the United States is experiencing a dramatic increase in ENDS/vaping associated lung injury (EVALI) and multiple deaths.<sup>6</sup> As of December 31, 2019, there have been 2,561 reported cases of EVALI and 55 deaths.<sup>7</sup> The CDC, Food and Drug Administration (FDA), state and local health departments, and public health and clinical partners are investigating the multistate outbreak of EVALI. Available data suggest THC-containing products play a role in this outbreak. Product samples and patient lung fluid samples tested by the FDA and various state laboratories identified vitamin E acetate. However, other chemicals have not been ruled out as contributing factors.<sup>8</sup> Nicotine-containing products have not been excluded as a possible cause.<sup>6</sup> While the investigation is ongoing, the CDC recommends that persons consider refraining from using all ENDS/vaping products. Many municipalities and a few states have restricted the sale of most ENDS/

vaping products until further data is provided on product safety. Given the popularity of ENDS and vaping products, it is highly likely that perianesthesia registered nurses will be providing care to both occasional and habitual users.

### **Symptoms Associated with EVALI<sup>8</sup>**

- Respiratory: coughing, chest pain, shortness of breath
- Gastrointestinal: abdominal pain, nausea, vomiting, diarrhea
- Constitutional: fever, chills, fatigue, weight loss

### **Clinical Evaluation<sup>8</sup>**

- Vital Signs: tachycardia, tachypnea, oxygen saturation at rest less than 95% on room air

### **Diagnostic Testing<sup>8</sup>**

- Chest Radiograph
- Chest Computed Tomography
- Respiratory Viral Panel
- Laboratory tests: CBC with differential, liver transaminase, ESR, C-reactive protein, urine toxicology

## **Position**

It is, therefore, ASPAN's position that perianesthesia registered nurses should seek out credible information regarding the use of electronic nicotine delivery systems (ENDS or vaping devices). Perianesthesia registered nurses should maintain current knowledge of the legal, medical and social implications of vaping products. Perianesthesia registered nurses should advocate for the following:

- Additional research on the healthcare implications associated with ENDS/vaping products
- Clarification of the legal status for the sale and use of ENDS/vaping products
- Strict enforcement of laws/regulations prohibiting the sale of ENDS/vaping products to minors
- Development of guidelines regarding the use of ENDS/vaping products before and after surgery
- Inclusion of specific questions related to patient use of ENDS/vaping products during preadmission and preoperative interviews
- Patient education and counseling regarding the use of ENDS/vaping products for tobacco/smoking cessation which include the possible adverse health effects

## **Expected Outcomes**

ASPAN promotes and encourages efforts to remain current with professional and societal changes that impact the health of communities and perianesthesia patients.



Perianesthesia registered nurses will advocate for additional research regarding healthcare effects from the use of ENDS/vaping devices and products. Perianesthesia registered nurses will collaborate with interprofessional colleagues to define education needs regarding the use of ENDS/vaping devices and products.

Perianesthesia registered nurses will contact national and state legislators to advocate for regulation of ENDS/vaping devices and products as well as for funding further research on the short- and long-term healthcare effects associated with the use of ENDS/vaping products.

## Approval of Statement

This statement was reviewed/endorsed by the ASPAN Board of Directors on April 25, 2020, and approved by a vote of the ASPAN Representative Assembly on April 26, 2020.

## REFERENCES

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