

E-Cigarettes and Health Care: What They Mean for Hospitals and Clinicians

The increasing popularity of electronic cigarettes or “e-cigarettes” is forcing hospitals and clinicians to determine what to recommend to patients who are looking to quit traditional tobacco. Due to the lack of evidence regarding the safety and efficacy of e-cigarettes, the Oklahoma Hospital Association urges health care providers to use caution.

What are electronic cigarettes?

Electronic cigarettes (e-cigarettes) are battery powered, rechargeable devices that deliver nicotine (or other substances) in the form of a vapor. They are also referred to as personal vaporizers (or “vaping”). These devices “heat and vaporize a solution containing nicotine, and many are designed to look outwardly like traditional tobacco cigarettes. Thus, as a cigarette-like device that mimics both hand-to-mouth and oral-sensory experiences of a traditional cigarette, e-cigarettes have the potential to attract significant numbers of customers who might otherwise smoke cigarettes.”¹

Are they safe?

Multiple sources site concerns with the safety of e-cigarettes.

- “There’s a need for clinical trials on safety and efficacy if we’re going to use these to help people stop smoking and **right now we don’t have any evidence at all that they help people stop smoking**”, states Dr. Richard Hurt, founder and director of Mayo Clinic’s Nicotine Dependence Center.²

Additional concerns involve quality testing and effectiveness. Without regulations to control what chemicals are included in the liquid nicotine, various products might look entirely different.

- In limited study samples, the “FDA found significant quality issues that indicate that quality control processes used to manufacture these products are substandard or non-existent.”³
- Questions have also been raised to the safety of inhaling substances that have not been regulated or tested in that context. While a product is safe to eat, it may have negative effects when heated and inhaled.^{2,4}

Other concerns are based on potential cell changes and risks.

- “Studies have shown that e-cigarettes can cause short-term lung changes that are much like those caused by regular cigarettes. But long-term health effects are still unclear. This is an active area of research, but the safety of these products is currently unknown.”⁴
- “For patients with a serious lung ailment, it is reasonable to be cautious about recommending the use of any treatment that involves inhaling foreign material into the airways.”¹

This may also be an issue for those facing wound healing issues, whether through surgery or personal injury. Nicotine Replacement Therapy in hospitals, using FDA approved and regulated nicotine medications under medical supervision, is not shown to have effects on postoperative outcomes, based on nicotine absorption levels; however that may not be the case for e-cigarettes.

- “Seasoned vapers” have been shown to attain a blood nicotine level nearly equal to that of traditional smokers. Therefore, surgical risks for e-cigarette users may be similar to smokers. This could be a particular issue for those patients with compromised circulation.⁵

Can they help people stop smoking?

E-cigarettes have not been approved as a cessation aid, and currently, none of the e-cigarette manufacturers have submitted applications for them to be used as such. Recent studies are showing mixed reviews regarding their effectiveness. One study states:

- “Smokers who got help through quitlines who reported using e-cigs (to quit or for other reasons) were less likely to succeed during their current quit attempt than those who did not.”⁶

Part of the concern is driven by the lack of safety and testing, and the lack of understanding of potential future problems caused by e-cigarettes.

- “Currently, many e-cigarette products are advertised for “when you can’t smoke”, or as a cheaper and safer alternative to traditional cigarettes. When used for “when you can’t smoke” the person becomes a dual user.”⁶
- Current scientific evidence shows that those who use two or more tobacco products (dual users) have more difficulty quitting than those who use a single tobacco product.”⁶ In these terms, we may be creating a bigger problem than we actually fix.

Other studies have compared the nicotine e-cigarette, non-nicotine e-cigarette, and the traditional nicotine patch. Neither of the e-cigarette options outperformed the nicotine patch.

- These studies did not determine if people were using e-cigarettes as a cessation aid, so the efficacy of the e-cigarette cannot be determined.
- In these studies “smokers who used e-cigarettes were less likely to quit smoking than smokers who did not use e-cigarettes.”⁷

What should I tell my patients?

It is important that all tobacco using patients be strongly advised to quit immediately.

- Explain how their tobacco use is specifically causing or exacerbating their current health situation, and potential future health problems.
- Let them know that there are effective options available to them, as they overcome their nicotine dependence, including the most effective: medications plus coaching support through a quitline. In Oklahoma that is 1-800 QUIT NOW.

- It is also important to counsel your patients on the safety and effectiveness of FDA approved cessation medications, versus e-cigarettes. “The safety and effectiveness of e-cigarettes are not fully understood, nor is there any evidence to suggest that e-cigarettes are safer or more effective than existing medications.”¹

Once a patient expresses a readiness to quit, offer them support.

- It is important for them to understand their motivating factors and past attempts, and that past attempts and relapses are normal and necessary steps to learning how to quit permanently.
- Encourage the use of non-contraindicated, FDA approved cessation medications and counsel the patient on appropriate use. (This may include the need to double patch or consider a combination therapy, based on the patient’s nicotine addiction level.)

If a patient is already using an e-cigarette in an attempt to quit smoking, it is important to support their decision to improve their health, while talking to them about the need to quit all forms of tobacco.

- Becoming a dual user can make the transition to tobacco-free much more difficult. Additionally, from a safety and liability standpoint, it is unknown what the long term effects of e-cigarettes will be.
- Patients should be encouraged to set a quit date for their e-cigarette use as well.

Ultimately, patients deserve tobacco treatment assistance from their health care provider. Seventy percent (70%) of smokers want to quit – they don’t know how and they don’t have the most effective tools to quit.

- Focus on the effectiveness of FDA approved cessation medications (when used correctly), as well as behavior change support (such as the Oklahoma Tobacco Helpline).

The following table offers some clinical scenarios to assist providers as they work with patients to establish nicotine dependence treatment plans.

Clinical Scenarios and Suggested Responses		
Clinical Scenarios	Suggested Response	Comment
The patient has recently stopped smoking, using methods other than e-cigarettes	Congratulate the patient on having stopped smoking cigarettes and monitor for relapse to smoking. If the patient is using pharmacotherapy, it is beneficial to discuss how long the patient feels the need to use the medications and discuss options to wean off medication support.	The patient should be told to avoid using any form of tobacco, including e-cigarettes, since this might trigger relapse back to smoking. Some patients do benefit from the use of cessation medications beyond the 8 - 12 week dosage, so continued use can be justified if the patient feels there is a benefit to helping them refrain from smoking cigarettes. In patients who are still undergoing or recovering from an intensive health treatment, continuing pharmacotherapy – if they achieved smoking cessation – may be reasonable rather than introducing the fear of smoking relapse at a stressful time for the patient.
The patient has recently stopped smoking but reports using an e-cigarette to refrain from smoking	Congratulate the patient on having stopped smoking cigarettes and monitor them for relapse to smoking. Discuss how long the patient feels a need to use the e-cigarette and discuss options to wean off e-cigarettes, including consideration of switching to cessation pharmacotherapy rather than using an e-cigarette.	The patient should be encouraged to wean off e-cigarettes. Clinicians should continue to offer adjunctive smoking cessation support while monitoring for any adverse effects of e-cigarette use.
The patient is still smoking, but is interested in stopping.	Congratulate the patient on being willing to give up smoking cigarettes and offer behavioral counseling and/or pharmacotherapy as appropriate following recommended treatment guidelines for nicotine dependence. E-cigarettes should not be recommended as a cessation therapy.	If the question of e-cigarettes is raised, the patient should be advised that e-cigarettes have not been established to be an effective treatment to stop smoking. A preference for established treatments should be clear.
The patient continues to smoke and is not interested in stopping	The patient should be encouraged to stop smoking cigarettes, using evidence-based methods at every opportunity. Repeated assessments, advice, and providing access to nicotine medications even for patients not ready to quit has been found to increase quit attempts and cessation.	There is no evidence to support e-cigarette use in this scenario. Research is needed in this area to define the actual benefits and harm associated with dual use of e-cigarettes and smoking.

What Does this Mean for Hospitals?

OHA Tobacco Treatment staff are seeing several trends:

- Patients who use tobacco are sometimes using e-cigarettes while they are in the hospital. Because of the newness of this product, there are few policies against their use.
- Hospital personnel are often not familiar with what e-cigarettes are or the potential health dangers they pose.
- Most hospitals that have already passed tobacco free campus policies do not include e-cigarettes in their policies.

Until more information or evidence is available about the safety of these products, it is recommended that hospitals do the following:

- Amend tobacco free campus policies to include e-cigarettes as potentially harmful and that they are prohibited from being used on their property.
- Inform patients at admission that e-cigarettes are prohibited from use, along with all tobacco products, and that other options are available to assist them in with their nicotine withdrawal while they are hospitalized, including medications and the Oklahoma Tobacco Helpline.
- Educate hospital employees about what e-cigarettes are and the potential risks they pose. Provide them with the tools they need to discuss this with patients.
- Advise employees who use tobacco that, along with other tobacco products, they are not permitted to use e-cigarettes on campus and that other options are available to assist them in quitting tobacco use.
- Provide employees, addicted to nicotine, with health benefits that include paid medications and referral to the Oklahoma Tobacco Helpline.
- Consult with your legal counsel on allowing patients to use e-cigarettes while in the hospital. Allowing the use of a non-FDA approved addictive substance that is not regulated and could possibly cause harm, may place your hospital in a libelous situation based on alleged health problems caused by the vapors and fumes. These issues could range from irritation to more serious problems such as respiratory issues and even cancer.⁸

Health Care Providers Should Support Effective Tobacco Use Treatment

Leading health and tobacco treatment specialists, nationwide, support evidence-based treatment for nicotine addiction based upon the clinical practice guideline, *Treating Tobacco Use and Dependence*. It should be a routine protocol in patient care. The most effective means for stopping tobacco use include all of the following:

- Talk to your patients about quitting tobacco use and options available to quit
- Discuss the FDA approved cessation medications to assist in managing cravings and withdrawal symptoms, such as nicotine replacement therapy (NRT), Chantix or Zyban.
- Refer patients to the Oklahoma Tobacco Helpline and to talk to a trained Quit Coach who will assist in many ways.

These three things combined are the most effective tools we now have for quitting tobacco use!

These three actions combined = 35% chance of success.

Quitting with no assistance = 5% chance of success.



For more information contact:

Jennifer W. Roysdon, OHA Tobacco Treatment Systems Coordinator, jennifer@okoha.com
Eric Finley, OHA Outpatient Tobacco Treatment Coordinator, efinley@okoha.com
405 427-9537

Hospitals Helping Patients Quit: Advancing Tobacco Treatment

References

1. Cummings KM, Dresler CM, Field JK, Fox J, Gritz ER, Hanna NH, Ikeda N, Jassem J, Mulshine JL, Peters MJ, Yamaguchi NH, Warren G, Zhou C. E-Cigarettes and Cancer Patients. *Journal of Thoracic Oncology* 2014; V9 4; 438-441.
2. "Comments on E-Cigarettes by Richard Hurt, M.D.; Interview
3. FDA, E-Cigarettes: Questions and Answers
4. "What about electronic cigarettes? Aren't they safe?" American Cancer Society
5. Kempton SJ, Burish NM, Rao VK. Electronic Cigarettes: Have You Asked Your Patients about Vaping? *Viewpoints* V133 6; 907e.
6. Vickerman KA, Carpenter KM, Altman T, Nash CM, Zbikowski SM. Use of Electronic Cigarettes Among State Tobacco Cessation Quitline Callers. *Nicotine and Tobacco Research* 2013
7. Grana RA, Ling PM, Benowitz N, Glantz S. Electronic Cigarettes. *Circulation* 2014; 129; e490-e492.
8. Dillsaver, A. Electronic Cigarettes: It's Time to Include Them in Your Tobacco Use Policy. *Oklahoma Bar Journal* V82, No 26, Oct. 2011; p. 2275.

Oklahoma Hospital Association

October 2014