What do we really know about e-cigarettes?

It’s been about 2 years since I had my first e-cigarette discussion with a patient. He was a smoker in his 30s and, since we routinely screen for tobacco use in our practice, I asked him if he was interested in quitting. He said he was cutting down by using e-cigarettes, but had not yet stopped smoking.

According to the 2 articles on e-cigarettes in this issue—one original research study about the prevalence of e-cigarette use in rural Illinois and one review of the safety of e-cigarettes—my experience with this patient is typical of e-cigarette users. Many are “dual users” who turn to e-cigarettes to try to cut down on their tobacco use.

As these 2 articles discuss, we still have a great deal to learn about the potential harms and benefits of e-cigarettes. What chemicals are people taking into their bodies and how dangerous are they? And even if they pose health risks, do e-cigarettes have value as smoking cessation aids if they are less harmful than tobacco?

One could simply take a “just say No” approach, as does my wife who says, “Any chemical you inhale into your lungs can’t be good for you!” Or, one can assume the more moderate lesser-of-two-evils stance of the British health system, which posits that there may be some benefit to e-cigarettes if they help people cut down or stop using tobacco products.

In writing this editorial, I conducted a quick literature search that yielded only 5 legitimate randomized trials of e-cigarettes to reduce or eliminate tobacco use, and the results were underwhelming. At best, e-cigarettes appear to be as effective as other forms of nicotine replacement, such as patches, which do not have chemical additives.

Fortunately, researchers are taking e-cigarettes seriously, and research is ongoing. Using the search term “e-cigarette” yielded 2058 references, indicating a respectable amount of e-cigarette research conducted over the past 6 years. Most of the research so far has been about the chemical constituents of the vapor people inhale or about use patterns. There is still a lack of definitive research on whether e-cigarettes are an effective smoking cessation method or a “gateway” to the use of tobacco and other substances of abuse.

Or perhaps they are both.

Hopefully, in 5 years we will know a great deal more, but until we do, I am happy to see that the US Food and Drug Administration has decided to regulate e-cigarettes like tobacco.

Are e-cigarettes a “gateway” to the use of tobacco and other substances of abuse? Or do they represent an effective way to quit smoking?