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Underwriting News

somewhat different

Is all smoking the same?

E-Cigarettes and Risk Selection

E-cigarettes consist of three basic components: a battery, a reservoir or cartridge containing a liquid and an atomizer with a heating element which is used to vaporize the liquid. The liquid in the reservoir generally contains nicotine in a glycerol or ethylene glycol vehicle with flavorings and variable amounts of some other chemicals in small amounts. Some e-cigarettes contain just the liquid and flavorings without the nicotine but their use is uncommon. Airflow sensors detect inhalation by the user which then activates the battery and heating element to vaporize the liquid and its contents. Air holes allow intake of the vapors by the user. While the product of the e-cigarette is smoke-like in character, unlike regular cigarettes, there is no actual combustion of material.

The first generation of e-cigarettes was similar in size and shape to regular cigarettes. The second and third generation products are substantially larger and less cigarette like in character and contain larger, refillable reservoirs for the chosen liquid.

The use of e-cigarettes has increased exponentially in recent years. Most users are current or former smokers who are using the product to cut down or stop smoking. Concurrent use of both conventional and e-cigarettes is common. However, there is evidence that some young people, especially college students, use them without a prior history of nicotine dependence. The common belief is that e-cigarettes are safer than their conventional counterparts.

Since e-cigarettes are largely unregulated in the countries where they are used, the amount of nicotine they contain is highly variable. The newer generation devices have much larger reservoirs and larger heating devices than was present in previous models and result in higher concentrations of nicotine in the aerosols produced. The absorption of the drug occurs primarily in the buccal mucosa and is slower than what is seen with cigarettes. However, experienced users are able to vary the depth and duration of their inhalations and are able to achieve blood levels of nicotine close to those seen with smokers.

Because there is only vaporization of a liquid and no burning of organic material, many of the common toxins and carcinogens found with conventional smoking are not seen with e-cigarettes. While there are some carcinogens and other toxins detected in the aerosols produced by these products, the levels are substantially lower than those detected in tobacco smoke.

To date there has been little to no evidence of severe adverse effects on health produced by e-cigarettes. Since there is no side stream production of aerosol, secondhand exposure to use of the product is limited and the risk of significant health effects related to this type of exposure are likely to be very low.

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The data available would indicate that the use of e-cigarettes can be effective for smoking cessation but not markedly so. Furthermore, it is not uncommon for individuals to use both electronic and regular cigarettes concurrently. In these cases the e-cigarettes may be used in places (public locations) where tobacco smoking is restricted and may actually help perpetuate the nicotine addiction and smoking habit. Hence, use of e-cigarettes is not a reliable indicator of smoking cessation.

From an insurance perspective e-cigarettes appear to be a lower risk alternative to smoking tobacco. However, from a practical point of view there is no good way to truly differentiate tobacco smokers from e-cigarette users. In all likelihood cotinine levels, if measured, will be elevated in both groups. In addition, with the continuation of conventional cigarettes in many e-cigarette users, use of the latter product does not guarantee abstinence from tobacco smoking. Thus, as is the case with most other nicotine containing smoking cessation products, while they are actively being used, it would be prudent to charge the applicant smoker rates. For the uncommon e-cigarette user who does not use a liquid containing nicotine and who does not have evidence of a positive urine or blood nicotine or cotinine level there does not appear to be sufficient evidence of substantial health and mortality risks to charge smoker rates.

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