Underwriting shisha

Shisha – the practice of smoking tobacco or non-tobacco alternatives in waterpipes – is becoming increasingly popular worldwide. **Mr Devesh Anand** of **RGA Reinsurance Company Middle East Limited** looks into the health risks of shisha and the underwriting considerations involved.

Life insurance applicants who answer "yes" to the standard Middle East underwriting question about shisha are spotlighting the increasing need for clear, factual knowledge about this practice and its specific risks.

Substantial research already exists about tobacco's health effects, so if an applicant uses cigarettes, bidis (handrolled cigarettes from India), cigars, conventional pipes, snuff or chewing tobacco, underwriters have specific, well-documented material readily available to assess and rate such cases.

If, however, the tobacco practice cited is shisha – that is, smoking tobacco or non-tobacco alternatives using a waterpipe – underwriting guidance is far less specific. As shisha use has been expanding globally as well as locally, this gap needs to be addressed.

Fortunately, over the past decade, research into shisha's specific health effects and risks has also grown. This body of knowledge about shisha is emerging none too soon, as centuries of misconceptions surrounding its health impact continue to spur the practice's growth.

What is shisha?

Shisha is believed to have been invented four centuries ago, in Persia and India. According to one historical description, the waterpipe came from the idea that water could filter harmful impurities from tobacco smoke. This misconception, which continues to the present day, has only recently begun to be disproven through research.

The word "shisha" covers several aspects of waterpipe use: it can refer to the actual practice of smoking prepared tobacco (or a non-tobacco substitute) through a waterpipe and to the tobacco (or substitute) that has been prepared for waterpipe smoking. Waterpipes themselves are sometimes called shisha, but are more frequently referred to by regional names such as hookah or gudgudaa (India), narghile or arghilah (Middle East), and qalyan (Iran).

The shisha preparation generally consists of fresh or air-dried tobacco leaves blended with additives such as fruit pulp, molasses, honey, mint, and/ or other flavourants or moisteners. If the mix is only tobacco and molasses, the ratio is generally 1:1 by weight. Other shisha preparations, such as moassel or tobamel, have less tobacco – generally 30% or lower. Herbal preparations have little to no tobacco, and glycerin-coated stones, no tobacco.

The waterpipe unit itself consists of a water bowl, a smoking unit fitted for the water bowl consisting of a small cup for tobacco set atop a metal tube extending into the water, and a flexible tube for inhalation that attaches to the upper part of the water bowl.

The shisha user first fills the water bowl halfway with water and fits the smoking unit to the bowl. The prepared tobacco is then placed into the tobacco bowl. In some countries, the mix is covered with a sheet of perforated tinfoil atop which smoldering nubs of charcoal are placed, and in others, the charcoal is placed directly upon the tobacco.

When a user inhales upon the flexible smoking tube, air is pulled through the heated charcoal into the moist tobacco, producing a vacuum in the water bowl that draws the smoke into the water. The smoke then bubbles to the water's surface for its final journey to the user's mouth and lungs.

Shisha is frequently a social activity, with two or more people sharing a waterpipe. Globally, it is found primarily in North Africa, the eastern Mediterranean and in parts of Asia, but over the past few decades, shisha has become increasingly popular worldwide, with non-tobacco shisha especially popular among college and high school students. Today, restaurant districts in several major Western cities in the US, the UK and in Europe have hookah lounges (in 2004 alone, more than 300 hookah lounges opened in the US), and the accoutrements – pipes, mouthpieces, smoking mixtures and the like – are easily available both in shops and online.

Shisha risk

One of the important things to understand about shisha is that it does present health risks, and concerns about those risks, given the practice's rising popularity over the past several years, have been increasing. The 2005 report, "Waterpipe Tobacco Smoking: Health Effects, Research Needs and Recommended Actions by Regulators," from the World Health Organization (WHO) Study Group on Tobacco Product Regulation, stated strongly that waterpipe use, whether using tobacco or of non-tobacco alternatives, is not a safe alternative to cigarette smoking.

Although puff for puff, shisha smoke is lower in tar and nicotine than a cigarette, the two practices are not really comparable. A single cigarette provides approximately 10 to 13 puffs over a five to seven-minute period, whereas a bowl of shisha is usually smoked for about an hour, during which anywhere from 50 to 200 puffs are taken (equivalent to 10-15 cigarettes). Given the social nature of shisha – users congregate in hookah lounges or in homes – users, especially in lounges, can inhale substantial levels of second-hand smoke.

Over the past several years, research has emerged linking shisha specifically to several diseases caused by tobacco use, disproving its "safe alternative to tobacco" reputation. Heavy, long-term waterpipe use (quantified as two to four preparations daily, three to eight sessions a day, or two to six hours a day of smoking time) has been shown to lead to tobacco-induced diseases, notably chronic obstructive pulmonary disease (COPD), cardiac disease and cancers, and might also have adverse effects during pregnancy (babies of shisha users have been shown to have lower birth weights, and be at increased risk for respiratory diseases).

Heavy exclusive use has also been shown to result in substantially elevated levels of carcinoembryonic antigen (CEA), a biomarker for cancer. The carcinogens generated by burning charcoal – carbon monoxide (CO) and polyaromatic hydrocarbons (PAH) – are another health risk of shisha use. These toxins are inhaled directly into a user's lungs and in social situations are also inhaled second hand, whether the practitioners are using tobacco, tobacco blends or non-tobacco alternatives.

In addition, shisha has been linked to the spread of infectious diseases such as tuberculosis, aspergillus (a fungus causing lung, sinus and skin infections as well as ulcers); and helicobacter (a bacterium genus associated with stomach ulcers, gastritis, and stomach cancer), if the shisha mixture is not prepared hygienically. Due to the common practice in some parts of the world of sharing a single waterpipe, shisha practitioners are also at risk for colds, oral bacterial infections, oral herpes (cold sores), and hepatitis.

Underwriting considerations

Applicants today who cite shisha use should be asked specific questions about their practice, including:

- How many years has shisha been practiced;
- How much shisha (whether tobacco or an alternative) is smoked on a typical day;
- The type of mixtures smoked, and the percent of tobacco in the mixes;
- The typical amount of time spent each day in shisha; and
- Whether the applicant also uses other tobacco products (eg, cigarettes, bidis, cigars, conventional pipes, chewing tobacco, and snuff).

The answers to the above questions will determine whether smoker rates should be used to underwrite these applicants.

For those applicants who exclusively use low- or no-tobacco alternatives, special underwriting considerations should apply. These individuals should be given a cotinine test, and depending on the results, could be assessed at non-smoker rates. However, given the health risks of inhaling charcoal's carbon monoxide, PAH and other carcinogens, practitioners consuming two or three stones a day or more should also be sent for a full medical examination, which should include an exercise stress test, to rule out cardiovascular or respiratory disease.

Finally, if other health risk factors are present, or if the applicant shows evidence of health complications associated with tobacco consumption, he or she should be rated according to these risk factors, diseases or complications.

Risks need to be carefully assessed

Shisha is not a practice that lowers smoking's health risks. Users are still inhaling tar and nicotine – substances known to cause cancers of the mouth, lung, stomach, and oesophagus, to reduce lung function, to cause cardiac disease and atherosclerosis, and to decrease fertility for both men and women.

Even opting for a non-tobacco alternative in a waterpipe does not lower shisha's health risk. Inhaling charcoal's CO and PAH makes non-tobacco alternatives a less than healthy proposition. Second-hand smoke, especially for those who frequent hookah lounges, is a health risk as well.

In addition, the sharing of waterpipe mouthpieces – a frequent occurrence given the communal nature of shisha – poses heightened risk for transmission of communicable diseases. Disposable mouthpieces are available at hookah lounges and can be bought by individuals wanting more sanitary shisha conditions, but it is unknown how effective these mouthpieces are at preventing disease transmission.

Overall, shisha is a practice whose risks need to be carefully assessed. As more research is conducted into its specifics, those who practice shisha can be underwritten more precisely.

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