

New ways to control smoking
Tobacco consumption and harm reduction

Scientific position paper

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Preliminary remarks

Tobacco dependency is an addiction (diagnosis code ICD 10: F 17.2), which can be treated successfully with the appropriate scientifically well-attested remedies for guideline-led abstinence from tobacco smoking [2] (behavioural therapy plus medicinal support). The methodology is known around the world and is specified and described in Germany in guidelines [1-3]. However, these methods reach only relatively few smokers (over 80% of male and female smokers in Germany do not try to stop smoking [1-3] and on average these methods are successful with just one in four [1-3]). The arsenal of ways of combating the high prevalence of smoking is set out in detail in the global Framework Convention on Tobacco Control (FCTC) [4, 5]. Germany ratified this convention on 16 December 2003, but so far is nowhere close to implementing it in its entirety. That is why Germany is currently in last position on the tobacco control scale in Europe (36 countries) [6]. The Federal Parliament has only recently passed a law banning the advertising of cigarettes, but this relates initially only to combustible cigarettes. However, the intention is to extend this to tobacco heaters and e-cigarettes in the next two years. No matter how welcome the overdue ban on advertising for combustible cigarettes may be, there is an urgent need not only to regulate alternative products but also to recognise them as aids for reducing the number of smokers. To that end, the signatories in the FCTC are also committed to 'harm reduction strategies that aim to improve the health of a population by eliminating or reducing their consumption of tobacco products' (Article 1(d) FCTC) [4].

Given the current circumstances, addictive smokers are reliant on alternatives to the very limited opportunities for aid afforded by statutory medical insurance schemes. The fact is that the option to use the tobacco abstinence services afforded by statutory medical insurance schemes as set out in para 20 of the German Social Code V (SGB V) (Prevention) have been implemented in Germany only to a very limited extent (9,360 cases in 2018). Not least among the reasons for this are the considerable barriers obstructing applications and the costs which to some extent are imposed on patients [7]. Large numbers of smokers keen to abstain from smoking switch to e-cigarettes in order to protect their health.

Tobacco harm reduction and smoking: What we need to know

- 'Making a complete switch to e-cigarettes is a means of harm reduction for tobacco smokers who can't or won't give up smoking.' [8].

Germany is still a country where tobacco consumption is high. The vast majority of tobacco users smoke and the number of smokers in the adult population is falling, but only slowly. At present, in 2020, the prevalence of smokers of both genders in the German population as a whole (from age 14 upwards) is 26.5% [19]. **There is an urgent need to supplement the existing prevention and regulatory initiatives with the apparatus of tobacco harm reduction.** The supply of information for the public on this way of considerably reducing the risks is inadequate, especially amongst smokers themselves [20].

- **The potential for this approach is immense.** A groundbreaking study relating solely to the USA puts it this way: ‘Compared with the Status Quo, replacement of cigarette by e-cigarette use over a 10-year period yields 6.6 million fewer premature deaths with 86.7 million fewer life years lost in the Optimistic Scenario. Under the Pessimistic Scenario, 1.6 million premature deaths are averted with 20.8 million fewer life years lost.’ [9]. The Vesuvius study (George et al 2019) demonstrated a benefit from making the change [24-25]. The field of vascular medicine has also demonstrated, for example, that giving up smoking can exert a beneficial influence – at any age – on amputation-free survival [26]. A further pioneering randomised study from the UK demonstrated that e-cigarettes are twice as effective as nicotine-substitute products in long-term abstinence from smoking (18% compared with 9%) [10].
- Naturally, no results of long-term research into e-cigarettes and tobacco heaters, especially with a direct comparison with the risks of combustible cigarettes, are available yet, nor will they be any time soon. However, this should not detract from the fact that risk assessment can, here and now, play a considerable role in plugging gaps in current knowledge. **Current risk assessment deems e-cigarettes and tobacco heaters to be considerably less harmful than continuing to smoke** and thus suitable now for making a contribution to reducing the risks of smoking. For example, Public Health England estimates that e-cigarettes are 95% safer than smoked tobacco and may be of help with giving up smoking [11-14]. There are also similar risk assessment statements, especially from the Federal Institute for Risk Assessment (BfR), on e-cigarettes and tobacco heaters [15-18].
- There are concerns that e-cigarettes could represent a ‘gateway’ into a life of smoking for young people and non-smokers alike. This concern must be addressed by continued observation of the market [19]. Fortunately, however, current figures from Germany show no indications of such an effect – the number of young smokers of e-cigarettes and tobacco heaters is very low. In 2018, a German study on tobacco use (DEBRA) showed that ‘E-cigarettes are only very rarely consumed in Germany by people who have never smoked. Over the whole observation period, the prevalence in that population stayed below 0.5%.’

The 'weighted one-year prevalence of current e-cigarette consumption' was 1.9% in the general population and 2.8% in the 14-17-year-old group (of whom >60% were cigarette smokers) [19].

- The latest Federal Centre for Health Education (BZgA) survey makes clear that the use (30-day prevalence) of e-cigarettes and tobacco heaters is not accelerating dramatically among young people (12-17-year-olds) and also that in this age group combustible products (shisha / water pipes and traditional cigarettes) still constitute the greater problem. At the same time, we see among young people a historically low proportion of smokers, which is probably the best indication that the anticipated gateway effect (not smoking --> e-cigarette / tobacco heater --> combustible cigarette) is not there to be seen. On the contrary – **across the world, the fall in the number of smokers, particularly among young people, is accelerating when e-cigarettes and tobacco heaters are used.** This means that we are not seeing the anticipated return to smoking as a normal practice. Instead, what is actually happening is that smoking cigarettes with tobacco is becoming less normal.

Recommendations to politicians, authorities, doctors, businesses and smokers

- **Recommendations to politicians and authorities:**

The provision of information to the public and smokers in particular on the benefits of e-cigarettes, tobacco heaters, tobacco-free nicotine products and tobacco harm reduction is completely inadequate. A survey conducted by the Federal Institute for Risk Assessment (BfR) revealed alarming gaps in people's understanding: 61% of respondents thought that the health risks with e-cigarettes were exactly the same, higher or much higher than the risks with cigarettes containing tobacco [20].

As in the UK, Canada and New Zealand, switching completely to e-cigarettes should be communicated, supported and recommended by health authorities as a means of helping to lower the numbers of smokers.

There is a need to provide reliable, neutral guidance for smokers and users of e-cigarettes on choosing suitable products and also to lower barriers to switching to alternative products not involving burning tobacco (e.g. tobacco heaters and e-cigarettes).

In the view of the authors, there is an absolute ethical necessity of pursuing a policy of providing differentiated information on the risks or, in other words, of stating unequivocally that e-cigarettes and tobacco heaters are not harmless, but constitute a less harmful alternative to continuing to smoke if otherwise smokers cannot manage to refrain from smoking tobacco cigarettes, which are far more harmful.

- **Recommendations to doctors and medical staff:**

Surveys show that giving up smoking is a subject often broached between patients, doctors and/or pharmacists. And yet, even among medical staff, there is a significant lack of information, which needs to be remedied.

As early as 2016, the authors of the PHE report called for doctors to recommend e-cigarettes [11-14]. The Royal College of Physicians report (2016) entitled 'Nicotine without smoke: tobacco harm reduction' indicates that e-cigarettes, because of their greater popularity compared with nicotine-substitute therapies, could reach more smokers [11-14]. The authors of a recently published review of the available literature on clinical and preclinical studies, invited by the European Society of Cardiology (ESC), came to the conclusion that patients desirous of giving up smoking should be recommended actively to adopt e-cigarettes as an alternative to continuing smoking. The report stated that this should be done, even with the present lack of knowledge on potential other low health risks [21-23].

- **Recommendations to employers and businesses:**

The direct and indirect cost of smoking to companies in Germany comes to €56.14 billion per year [21-23]. That alone should be reason enough **for publicising, as part of operational health management, switching to products not involving burning tobacco as well as other methods of giving up smoking.** Appropriate information materials and advice centres should be set up.

- **Recommendations to smokers:**

The best that smokers can do for their health is to stop immediately. If that is not achievable, then the way forward to be recommended is switching totally to alternative products not involving burning tobacco (e-cigarettes, tobacco heaters, tobacco-free nicotine products). The important aspect to note is that the switch must be total without smoking continuing at the same time (dual use). Dual use may be acceptable for a short transitional period, but it must end as quickly as possible in favour of switching totally because it is known that smoking a few cigarettes per day is still associated with major health risks (there is a non-linear, exponential relationship between cigarette consumption and risk) [17-19].

Smokers should themselves choose between the product types suitable for reducing the risks associated with smoking (e-cigarettes, tobacco heaters, tobacco-free nicotine products) and ideally be able to switch to them completely as quickly as possible.

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