

What doctors should consider before prescribing e-liquids for e-cigarettes

TO THE EDITOR: As nicotine prescribers, we welcome much needed advice for doctors on prescribing nicotine. However, we disagree with several recommendations and concerns raised in the article by Ween and colleagues.¹

First, in our experience, the recommended starting nicotine concentration of 18 mg/mL is inappropriate for most new users. The most popular devices for transitioning to vaping (pod vapes) have small batteries and require higher nicotine salt concentrations to effectively relieve cravings and withdrawal symptoms, typically 20–50 mg/mL.² On the other hand, 18 mg/mL would be too strong for a smoker with low nicotine dependence using a more powerful vape pen or mod device. The concentration of nicotine required should be personalised for each user based on the level of nicotine dependence, device type and puffing topography.³

Second, the authors' concerns about the toxicity of nicotine are overstated in our view. Nicotine is a toxic poison in its highly concentrated form, but the low concentrations used for vaping carry minimal risk of serious harm, although the long term impact of inhaled nicotine on lung tissue is not yet known.⁴

Third, Ween and colleagues raise concerns about the addictiveness of nicotine. However, most smokers who switch to vaping are already nicotine-dependent. Dependence on vaping is generally less than for smoking⁵ because,

in many cases, peak nicotine levels from vaping are lower and nicotine delivery is slower. In vitro and animal studies suggest other chemicals in smoke may also increase dependence, but human studies are lacking.^{6,7}

Fourth, a blanket "3-month prescription maximum" and an "agreed abstinence plan" do not recognise the diversity of the needs of smokers. Switching to vaping and then ceasing smoking can take many months or years for some smokers. Many continue to vape long term to avoid relapse to smoking or for perceived benefits. Therefore, a more flexible and personalised approach is needed.

Last, Ween and colleagues are correct that unknown harms from flavours may appear over time and these need to be carefully monitored. However, flavours are an integral part of the appeal of vaping. Flavours encourage the uptake of vaping by smokers and are associated with higher quit rates.^{8,9} A recommendation to avoid flavours risks inadvertently increasing smoking.

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Competing interests: Colin Mendelsohn has published a book on vaping nicotine, *Stop smoking start vaping*. He was the founding chairman of the Australian Tobacco Harm Reduction Association (ATHRA), a health promotion charity established to raise awareness of safer alternatives to smoking, but he stepped down from the Board in January 2021. ATHRA received funding from the vape industry to establish the charity. Funding was ceased in March 2019. He has not received any payments from electronic cigarette or tobacco companies. Carolyn Beaumont received an honorarium from the Faculty of Medicine and Health, University of Sydney, for presenting at the Sydney Addiction Seminar on 4 November 2020. She also fully owns and controls the website www.medicalnicotine.com.au, from which

she provides telehealth consults with patients over 18 years of age requiring smoking cessation assistance and, if appropriate, liquid nicotine for vaping for smoking cessation purposes only. ■

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