Regulating E-Cigarettes

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Health harm

- E-cigarettes deliver lower levels of carcinogens than cigarettes
- expose users to high levels of ultrafine particles and other toxins
- may increase cardiovascular and non-cancer lung disease risks account for more than half of all smoking-caused deaths
- e-cigarettes are reducing smoking cessation rates
- increasing the nicotine market by attracting youth (Glantz et al, 2018)



Safety of e-cigarettes

- Responsibility for demonstrating safety or harm has fallen on the health sector
- E-cigarettes came to market without any good data showing effect on smoking cessation
- Sold on concept of "Harm reduction"





Registration of e-cigarettes

- Not tobacco products so do not fall under Tobacco Products Control Act
- Medicines and Related Substances Act of 1965
 ("Medicines Act"), nicotine-containing e-cigarettes that are sold
 as a substitute for tobacco products (or as a medicinal aid to
 quit smoking) must be registered with the Medicines Control
 Council for lawful sale, and may only be sold in pharmacies, on
 prescription.

ORIGINAL ARTICLE

A Randomized Trial of E-Cigarettes versus Nicotine-Replacement Therapy

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Table 2. Abstinence Rates at Different Time Points and Smoking Reduction at 52 Weeks.*

Outcome	E-Cigarettes (N = 438)	Nicotine Replacement (N = 446)	Primary Analysis: Relative Risk (95% CI)†	Sensitivity Analysis: Adjusted Relative Risk (95% CI)
Primary outcome: abstinence at 52 wk — no. (%)	79 (18.0)	44 (9.9)	1.83 (1.30-2.58)	1.75 (1.24–2.46)‡
Secondary outcomes				
Abstinence between wk 26 and wk 52 — no. (%)	93 (21.2)	53 (11.9)	1.79 (1.32–2.44)	1.82 (1.34–2.47)§
Abstinence at 4 wk after target quit date — no. (%)	192 (43.8)	134 (30.0)	1.45 (1.22–1.74)	1.43 (1.20–1.71)¶
Abstinence at 26 wk after target quit date — no. (%)	155 (35.4)	112 (25.1)	1.40 (1.14–1.72)	1.36 (1.15–1.67)‡
Carbon monoxide–validated reduction in smoking of ≥50% in participants without abstinence between wk 26 and wk 52 — no./total no. (%)	44/345 (12.8)	29/393 (7.4)	1.75 (1.12–2.72)	1.73 (1.11–2.69)





Efficacy of e-cigarettes as a quit tool

- Among participants with 1-year abstinence:
 - 80% (63 of 79) were using e-cigarettes at 52 weeks in the e-cigarette group
 - 9% (4 of 44) were using nicotine replacement in the nicotine replacement group







Public health organisations statements

 A 2016 European Public Health Association statement "The health risks associated with e-cigarettes remain uncertain, but they cannot be considered safe. What is certain is that statements that they are some percentage safer than conventional cigarettes are so far unjustified".





Public health organisation statements

- The European Respiratory Society (2019) treats e-cigarettes exactly the same as cigarettes
- Recommends they are not used
- Apply the same membership restrictions regarding conflicts of interest for e-cigarettes as for cigarettes



Public health organisation statements on e-cigarettes

- Lancet 2019: No e-cigarettes have been tested or launched as smoking cessation products;
- All sold directly to the consumer as tobacco, not medicinal, products.
- No solid evidence base supports marketing claims that e-cigarettes are healthier than cigarettes or that they can support quitting
- Lax regulation has allowed e-cigarette manufacturers to position e-cigarettes as healthy



WHO statement on e-cigarettes, 2014

- Health risks evident for both users and non-users
- Efficacy as a quit tool not certain
- Interferes with existing tobacco control efforts and undermines the implementation of the FCTC





Areas of concern

- Nicotine is a highly addictive substance
- Gateway for adolescents to tobacco products
- Contain propylene glycol known irritant when inhaled. 2018 study with mice shows severe health impact even when non-nicotine products are used
- Poorly regulated
- No convincing evidence for smoking cessation
- Other safer and researched smoking cessation options are available



E-cigarette regulation globally

- 98 countries with national/federal laws regulating e-cigarettes including laws related to
- Sale (including minimum age)
- advertising, promotion, sponsorship, packaging (child safety packaging)
- health warning labeling and trademark)
- product regulation (nicotine volume/concentration, safety/hygiene, ingredients/flavors)
- reporting/notification
- classification of e-cigarettes
- use (vape-free) and taxation (www.globaltobaccocontrol.org)





Draft Tobacco Bill

- Proposes regulation exactly as cigarettes are regulated
- Marketing
- Ban on indoor public use
- Graphic health warnings
- Plain packaging



