

Alarming profiles of vape poisoning cases in Malaysia (2015–2024): The urgent need to expedite enforcement of the new tobacco act

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ABSTRACT

Introduction: The National Health and Morbidity Survey 2022 showed an increase of 52% in the prevalence of vape users aged 13 to 17 compared to 2017. This, in turn, will increase the risk of health effects to users, including acute poisoning due to nicotine overdose and the misuse of drugs or other prohibited substances. The Malaysian National Poison Centre (NPC) have been receiving calls with alarming profiles of poisoning cases involving e-liquid from 2015 to 2024. Considering these worrying trends, the collected data were analyzed to highlight the epidemiological shifts, risk factors, and regulatory implications.

Materials and Methods: A retrospective analysis was performed using data from e-liquid poisoning exposure calls received by the Malaysian National Poison Centre between January 2015 and December 2024 using SPSS 26 software. **Results:** and **Discussions:** Analysis of 152 cases reveals a five-fold increase in poisoning incidents from 2019 to 2024, with two distinct surge periods: during the COVID-19 Movement Control Order (2020–2021) and post-pandemic. Initially, in 2015–2021, cases predominantly involved children under five (63%) due to accidental ingestion. In 2023, nicotine was delisted from the Poisons Act, and a new trend emerged: 41% of reported cases involved teenagers aged 15–19 who intentionally vaped and subsequently experienced acute effects following exposure. Symptoms ranged from acute nicotine toxicity (vomiting, seizures, drowsiness) to severe neuropsychiatric effects like psychosis and hallucinations, with suspected adulteration by substances abuse. Geographically, central region states such as Selangor and Kuala Lumpur reported higher incidence rates with a total of 53 cases (34.9%), correlating with higher prevalence of users. **Conclusion:** The NPC's data underscores urgent needs to expedite the Control of Smoking Products for Public Health Act 2024 enforcement and public awareness campaigns targeting adolescents. Strong, united actions are needed to protect youth and help Malaysia reach its goal of a tobacco-free generation.

Keywords: Vape Poisoning Malaysia, E-Cigarette Liquid Poisoning, Vape Exposure, National Poison Centre, Enforcement