



# Safety Information 001/15

## E – Cigarettes, Oxygen Therapy, Burns and Fire Risk

20 January 2015

### Distributed to:

- Chief Executives
- Directors of Clinical Governance.

### Expert Reference Group

Content reviewed by:

- Mental Health and Drug and Alcohol Office
- Centre for Population Health.

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### Review date

January 2018

### Background

NSW Health recently received advice that a patient sustained superficial partial thickness burns to their fingers whilst on nasal prong oxygen and using an Electronic–cigarette (e-cigarette). Similar incidents which have resulted in patient burns and death have been reported in the United Kingdom, Canada and United States.

E–cigarettes also known as e-cigars, vape pens or personal vapourisers work by heating liquid, which usually contains nicotine. The liquid turns into a vapour which is inhaled. Design and operation of e-cigarettes varies, but often includes a battery, heating element, and a cartridge containing substances such as propylene glycol, liquid nicotine and flavourings. Further information about e-cigarettes is available on the NSW Health at: <http://www.health.nsw.gov.au/tobacco/Pages/electronic-cigarettes.aspx>

Potential ignition of an e–cigarette can occur via the heating element (which vapourises the liquid solution) or from the power source (either a separate battery charge or USB port). The risk of fire and serious injury increases if the e-cigarette is used in close proximity to pressurised oxygen. Ignition is often sudden, is accompanied by a loud noise, a flash of light, smoke, flames, and often vigorous ejection of the battery and other parts. Patient burns have been attributed to explosions. The illustrations below are some examples of these devices.



The NSW Health Smoke-free Health Care Policy bans the use of electronic cigarettes in NSW Health buildings, grounds and vehicles. The Policy can be viewed at: [http://www0.health.nsw.gov.au/policies/pd/2015/PD2015\\_003.html](http://www0.health.nsw.gov.au/policies/pd/2015/PD2015_003.html)

### References

1. Government of Canada “Consumer Product Update: Health Canada Warns of Fire Risk to Oxygen Therapy Patients from Electronic Cigarettes and Other Electrical Devices available at <http://healthycanadians.gc.ca/recall-alert-rappel-avis/hc-sc/2014/42671a-eng.php>
2. Electronic Cigarette Fires and Explosions. FEMA available at [https://www.usfa.fema.gov/downloads/pdf/publications/electronic\\_cigarettes.pdf](https://www.usfa.fema.gov/downloads/pdf/publications/electronic_cigarettes.pdf)

### Suggested actions by Local Health Districts/Networks

1. Distribute this Safety Information Notice to all relevant clinical staff to ensure they are aware of the risk and the relevant policy.
2. Patients / carers should not use e-cigarettes (including charging) in NSW Health buildings, ground and vehicles especially not while located near oxygen therapy equipment
3. Ensure that patients / carers are informed of the potential risks with smoking and charging e-cigarettes near oxygen sources.
4. Consider placing warning labels on oxygen sources.
5. Local Health Districts / Networks have documented procedures in place to minimize this risk.