



UW PACC

Psychiatry and Addictions Case Conference

UW Medicine | Psychiatry and Behavioral Sciences

VAPING-RELATED ILLNESSES & TREATMENT OF TOBACCO USE DISORDERS UPDATE

SPECIAL GUEST: JEFFREY DUCHIN MD

HEALTH OFFICER, PUBLIC HEALTH—SEATTLE & KING COUNTY

MARK DUNCAN MD

UNIVERSITY OF WASHINGTON



SPEAKER DISCLOSURES

- ✓ Any conflicts of interest-none

OBJECTIVES

1. Remind everyone that tobacco kills a lot of people
2. Provide update on vaping related illnesses
3. Provide update on treatment of tobacco disorders
4. Strongly urge everyone to offer treatment

DR. JEFFREY DUCHIN

**HEALTH OFFICER, PUBLIC HEALTH—SEATTLE & KING
COUNTY**

SMOKING IS STILL THE LEADING PREVENTABLE CAUSE OF DEATH

- In the World: > 8 million people
- In the US: > 480,000 people
 - Cancer, CV, Respiratory (>437,400)
- In WA State: 8300 people

TREATMENT UPDATES

UPDATES? → *JUST KEEP OFFERING IT*

- Keep **A**sking about use
- **A**dvice quitting*
- **A**ssess readiness to quit*
- **A**ssist in quitting
 - Meds: NRT, Varenicline, Bupropion
 - Behavioral support:
- **A**rrange follow-up → *1-2 weeks!*

*May omit in the proactive approach
Stead LF, et al, 2016

ORIGINAL ARTICLE

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

Peter Hajek, Ph.D., Anna Phillips-Waller, B.Sc., Dunja Przulj, Ph.D.,
Francesca Pesola, Ph.D., Katie Myers Smith, D.Psych., Natalie Bisal, M.Sc.,
Jinshuo Li, M.Phil., Steve Parrott, M.Sc., Peter Sasieni, Ph.D.,
Lynne Dawkins, Ph.D., Louise Ross, Maciej Goniewicz, Ph.D., Pharm.D.,
Qi Wu, M.Sc., and Hayden J. McRobbie, Ph.D.

- UK, N=886
- NRT vs e-cig
- Weekly 1:1 behavioral support for min 4 weeks
- Outcome: sustained abstinence at one year

ORIGINAL ARTICLE

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

1-year abstinence rates

E-cigarettes	Nicotine Replacement
18%	9.9%
80% still using product	9% still using product
<ul style="list-style-type: none"> • < satisfying vs cigarette but > satisfying vs NRT • Less withdrawal a 1 week, same at 4 weeks • Less severe urges to smoke 	
<p>Treatment adherence was the same Withdrawal symptoms the same</p>	

Monoamine oxidase inhibitory activity of flavoured e-cigarette liquids

Penelope Truman^{a,*}, Stephen Stanfill^b, Ali Heydari^a, Elana Silver^c, Jefferson Fowles^d

^a School of Health Sciences, Massey University Wellington, New Zealand

^b Division of Laboratory Sciences, National Center for Environmental Health, Centers for Disease Control and Prevention, Atlanta, GA, USA

^c Laurelton Research, Oakland, CA, USA

^d Environmental Health Investigations Branch, California Department of Public Health, Richmond, CA, USA

- Analyzed 12 e-liquids available in California from “normal” commercial outlets
- Goal**
 - to determine MAO inhibitory activity
 - Identify potential causes of MAO inhibition activity

Flavor	Nicotine (mg/mL)
Vuse Original	48
Menthol	48
Black Honey Hookah Tobacco	18
Tropical Fruit Medley	0-18
Vanilla bean	15
Menthol	15
Cinnamon Roll	12
Vanilla Custard	6
Blue Raspberry	3-12
Cured Kentucky Tobacco Leaf	0

E-CIG JUICE AND MAO-I RESULTS

- MAO A&B are inhibited
- Related to amounts of Vanillin & ethyl vanillin (used in flavoring)
- Some flavors may be more reinforcing

Flavor	Nicotine (mg/mL)	Relative MAO-A inhibition
Vuse Original	48	2
Menthol	48	2
Black Honey Hookah Tobacco	18	3
Tropical Fruit Medley	0-18	4
Vanilla bean	15	5
Menthol	15	1
Cinnamon Roll	12	5
Vanilla Custard	6	3
Blue Raspberry	3-12	5
Cured Kentucky Tobacco Leaf	0	1

Moderators of real-world effectiveness of smoking cessation aids: a population study

Sarah E. Jackson¹ , Daniel Kotz^{1,2} , Robert West¹  & Jamie Brown^{1,3} 

- Data taken from an ongoing national surveillance program of adults in England
 - N=18, 989
 - N who used an aid=10, 581
 - (27.5% OTC NRT, 8.5% Rx NRT), (12.7% ecigs), (5.5% Varenicline), (4.6% face to face)
- Questions
 - Which smoking cessations aids increase the chance for success vs No aid.
 - What was associated with success?

RESULTS

- **Covariates:** strength of urges to smoke, most recent quit attempt, number of past quit attempts, cutting down or just stopping abruptly, age, sex, occupation level

Aids that worked

- E-cigs (especially in men)
 - Varenicline (a little more in men)
 - Rx NRT for Older smokers (≥ 45 yo)
 - Telephone support and websites for higher levels of addiction
 - Websites helpful for lower occupation levels, younger
-
- Majority of smoking cessation aids did not differ across socioeconomic groups
 - Some data was still too small to draw conclusions

WA STATE TOBACCO UPDATES

- Sale age for tobacco and vapor products raised to age 21
 - >95% of addiction smokers start smoking before age 21
 - Avg WA household pays \$789 in taxes each year due smoking-related health care

Goes into effect on January 1, 2020

WA STATE QUIT AIDS

[HTTPS://WWW.DOHW.A.GOV/YOUCANDYOURFAMILY/TOBACCO/HOWTOQUIT](https://www.doh.wa.gov/youandyourfamily/tobacco/howtoquit)

Washington State Department of Health
Tobacco Quit Line
1-800-QUIT-NOW
toll-free 1-800-784-8669
QUITLINE.COM

Vaping (for teens/young adults)



Smoking & Tobacco



QUESTIONS?