

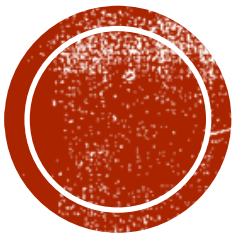
SMOKING CESSATION:

**EQUIPPING OURSELVES TO EQUIP
OUR PATIENTS ON THEIR JOURNEY**

Heart Attack Day

May 24, 2018

Jamie Falk, BScPharm, PharmD



FACULTY/PRESENTER DISCLOSURE

- Faculty: **Jamie Falk**
- Relationships with commercial interests:
 - **Not Applicable**

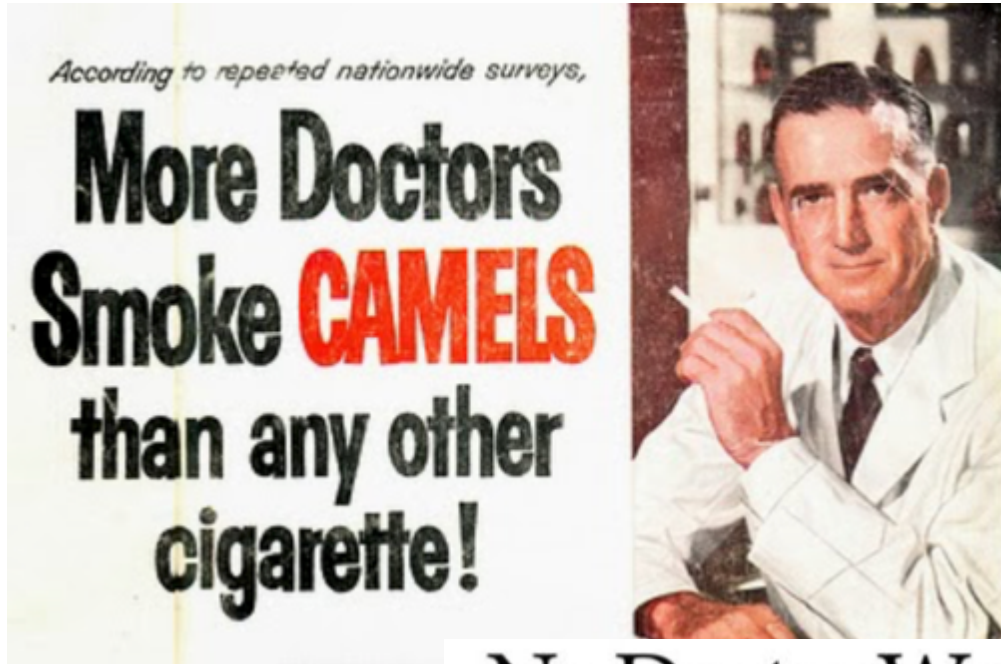


OUTLINE

1. Smoking is the worst thing in the world
2. Round 10 is slightly less brutal than Round 1
3. Essential resources in a time of resource minimization
4. Does your NRT regimen do yoga?
5. NRT, NRPA, NDRI, NNT & TNT... are the benefits of cessation treatment dynamite?
6. Is trying to quit literally going to drive me crazy?
7. Can smoking cessation be heart breaking?
8. Sir, would you like to make that a combo?
9. Striking while the iron is hot
10. Just quit already... gradual vs. abrupt cessation



SHAME ON YOU



**OH YEAH,
RIGHT**

No Doctor Would Prescribe Tobacco,
So Why Do Pharmacies Sell It?



It's time to end this practice.

Lend your support at NYCSmokeFree.org

SO, YOU KNOW, IT ALL BALANCES OUT

The Washington Post

Jan. 10, 2017

To Your Health

Smoking costs the world economy \$1 trillion per year, World Health Organization says

The world was gloomy before I won - there was no hope. Now the market is up nearly 10% and Christmas spending is over a trillion dollars!

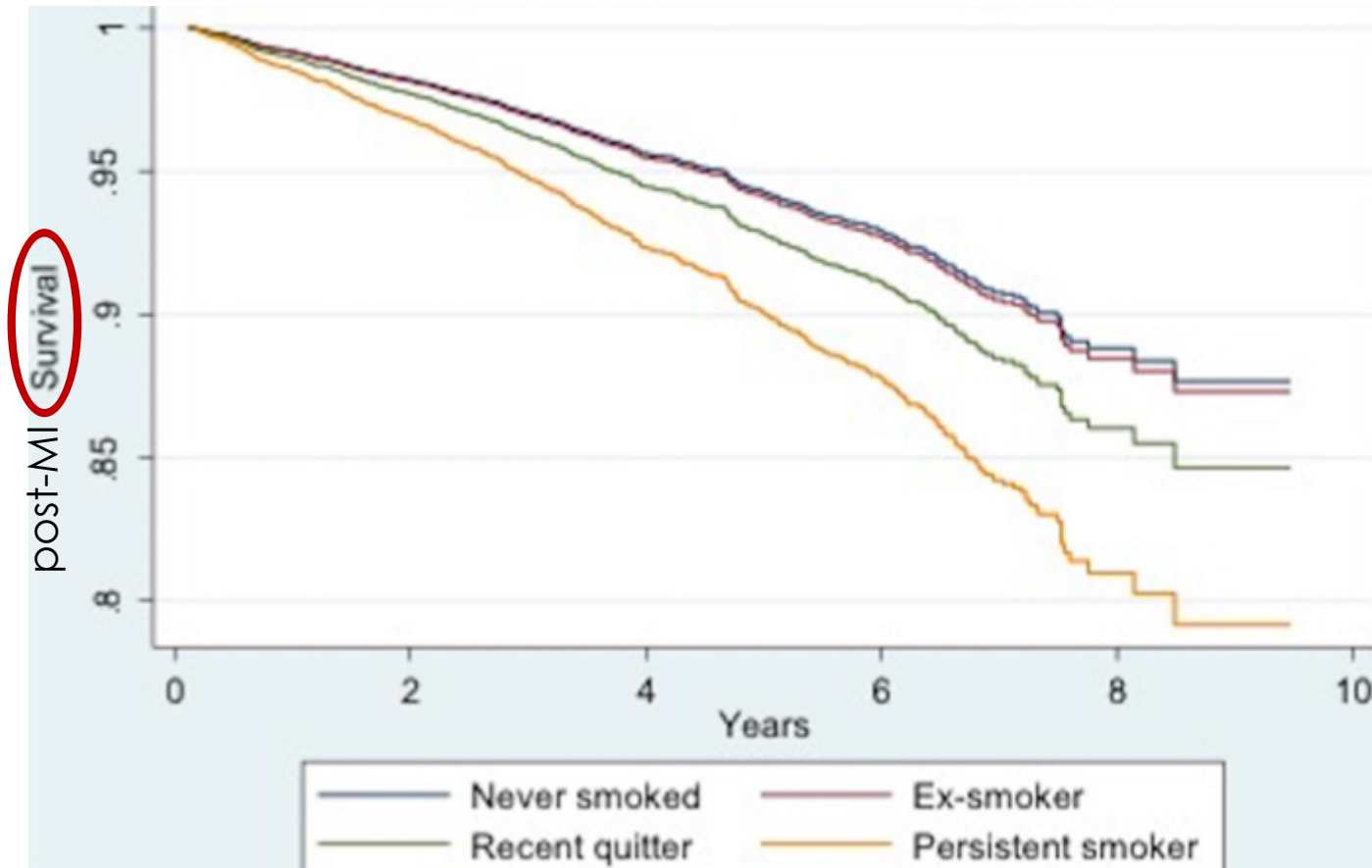
Donald J. Trump 
@realDonaldTrump



**WHAT'S SO BAD ABOUT
SMOKING ANYWAY?**



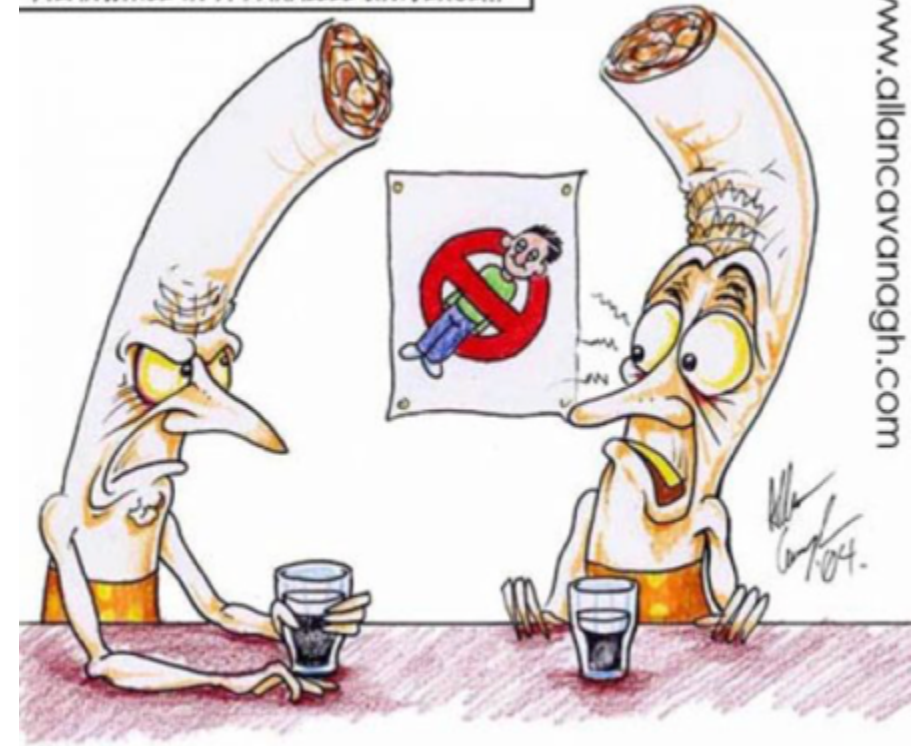
OK, NOW THIS IS PERSONAL



Cox proportional hazard regression survival curve

BMJ Open 2017;7:e016874

MEANWHILE IN A PARALLEL UNIVERSE...



www.allancavaghan.com

"MAN, I COULD KILL A HUMAN RIGHT NOW!"

AND...

for those who quit after an MI → risk of ❤️ event = nonsmokers by 3 years

Ann Intern Med 2002; 137:494–500

SOME PEOPLE ARE TRYING REALLY HARD TO QUIT

May 9, 2013 (SACRAMENTO, Calif.) -- A California woman is so desperate to stop smoking she smacked a police officer. Deputy Matt Campoy was leaving the county jail in Sacramento. He says Etta Lopez stepped right up and slapped him in the face.

The officer says Lopez told him she knew she would be immediately arrested and tossed in jail. Lopez believes getting locked up is the only way she can quit smoking.

Lopez is charged with assaulting an officer. She is in jail, where no cigarettes are allowed.

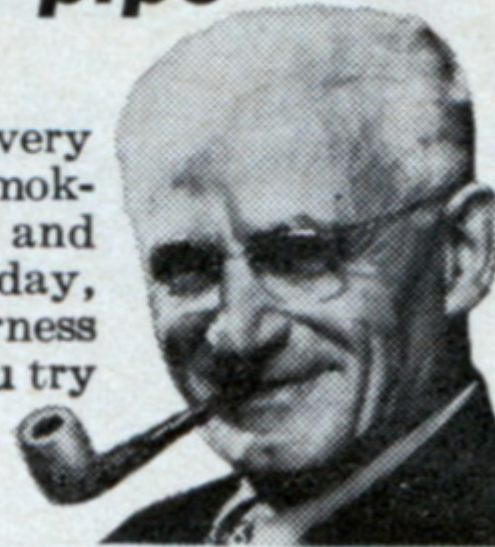
www.abc7chicago.com



SOME ARE NOT...

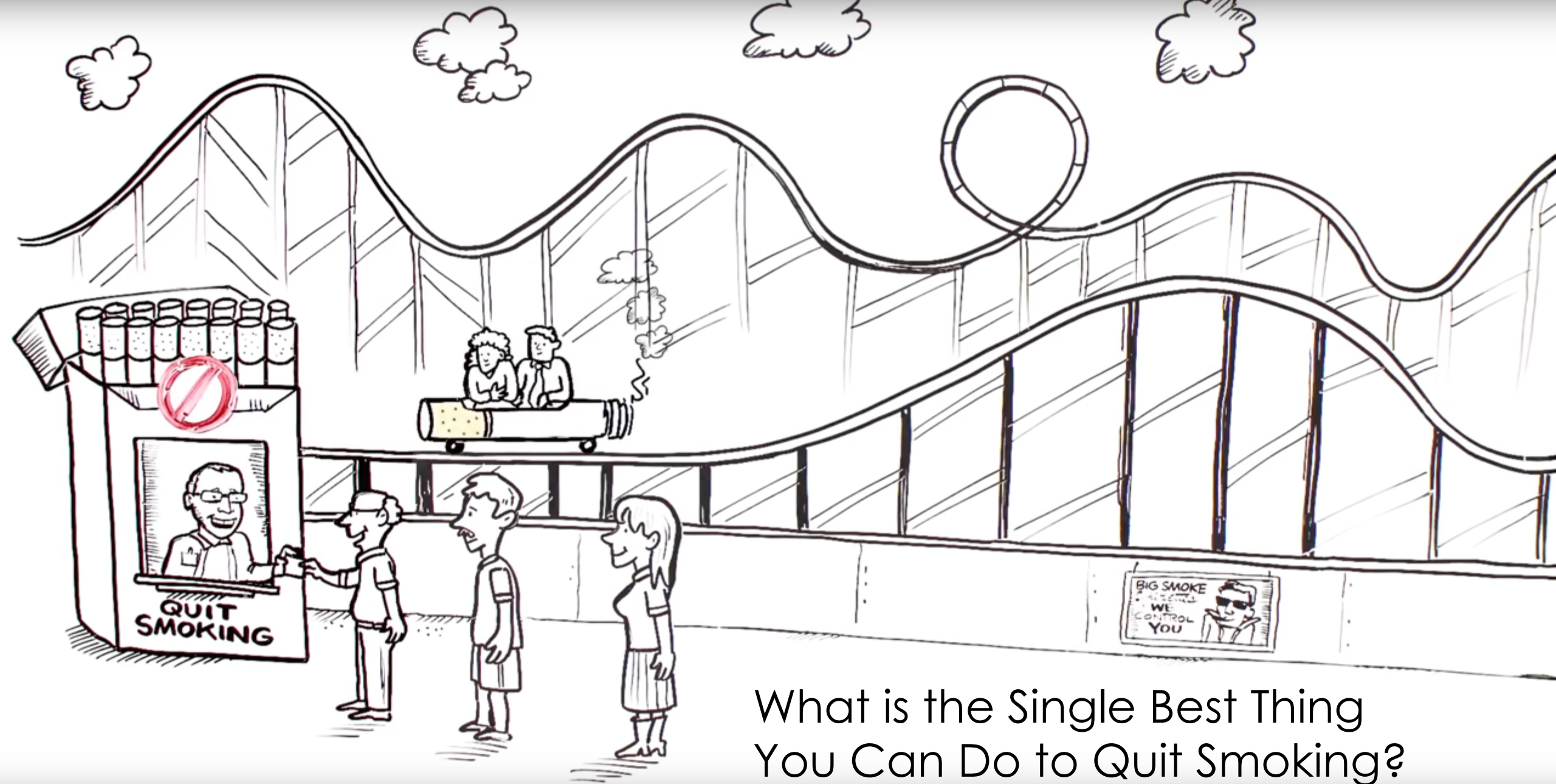
DON'T QUIT SMOKING
*before giving my pipe
a 30 Day Trial*

New principle that contradicts every idea you've ever had about pipe smoking. I guarantee it to smoke cool and mild hour after hour, day after day, without rest, without bite, bitterness or sludge. To prove it, I'll let you try a new Carey Pipe. Send your name and address today for my *free* complete trial offer. Write:



E. A. CAREY, 1920 Sunnyside Ave., Dept. 281-B, Chicago40





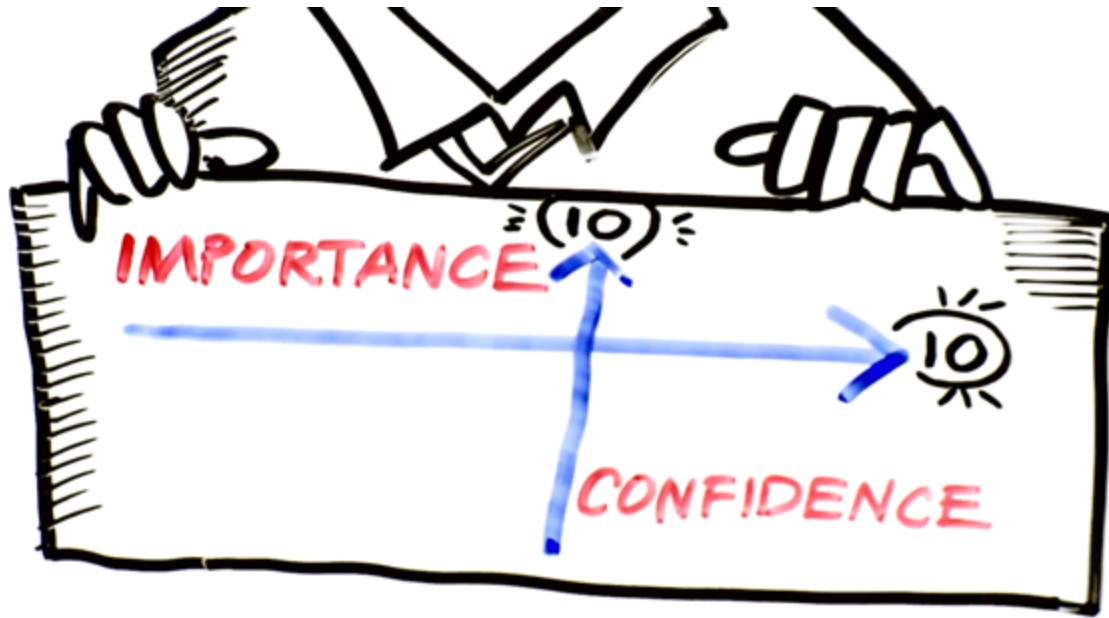
What is the Single Best Thing
You Can Do to Quit Smoking?

<https://www.youtube.com/user/DocMikeEvans>



SELF-EFFICACY

“Your job is to be honest. My job is to see if I can move your scores towards 10.”



- Ask** - about tobacco use every visit
- Advise** - to quit
- Assess** - willingness to quit
- Assist** - implement plan
- Arrange** - follow-up



For us:

- www.can-adaptt.net
 - **PACT SK/MB** <http://www.makeapact.ca/>
- } guidelines
algorithms
tools

For them:

- **Smokers' Helpline:** <https://www.smokershelpline.ca>
- **Run to quit:** <https://www.runtoquit.com>
- **On the Road to Quitting:**
<https://www.canada.ca/en/health-canada/services/publications/healthy-living/road-quitting-guide-becoming-non-smoker.html>
- **Local smoking cessation programs**
 - <https://wellnessinstitute.ca/smoking-cessation/>
 - <http://www.wrha.mb.ca/community/primarycare/files/HealthMgmt-GroupProgram-Guide.pdf>
- **You**

resources:

**WE'VE GOT
A FEW
OPTIONS**



Cessation Counseling

Quit to Win

Workplace Programs

Student Programs

Printed Material for Cessation

Aboriginal Resources

Resources for Health Professionals & Community Members

Cessation Medications

Hospitals

Health Insurance Plans

Province of Manitoba

In Manitoba, there is a variety of resources and programs available to reduce tobacco use among a number of populations. MANTRA has compiled a list of Manitoba specific resources for people looking to quit smoking, those who want to help people quit.

CESSATION COUNSELING

Smoker's Helpline and Smoker's Helpline Online

Manitoba Quits

Break It Off Website and App

Tobacco Dependence Clinic

Individual or Group Quit Smoking Assistance

Commit to Quit

Regional Pulmonary Rehabilitation Program

LGBTQ

Your nurse, doctor or pharmacist

Canadian Cancer Society
P: (866) 366-3667
www.smokershelpline.ca

• A free confidential toll-free help line staffed with trained professionals who can offer advice and support in a non-judgmental manner.

QUIT TO WIN

Walk or Run to Quit

First Week Challenge

Get help to quit smoking by walking or running 5 km. Walking or running can help you overcome withdrawal and cravings, cutting down or quitting gets better, when you quit and get active, you'll have a chance to win \$1000!

There are supportive training programs available at a cost or a free train on your own option. For more information visit www.runtoquit.com

CESSATION COUNSELING

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Regional Pulmonary Rehabilitation Program

LGBTQ

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www.smokershelpline.ca

- A free confidential toll-free help line staffed with trained professionals who can offer advice and support in a non-judgmental manner.

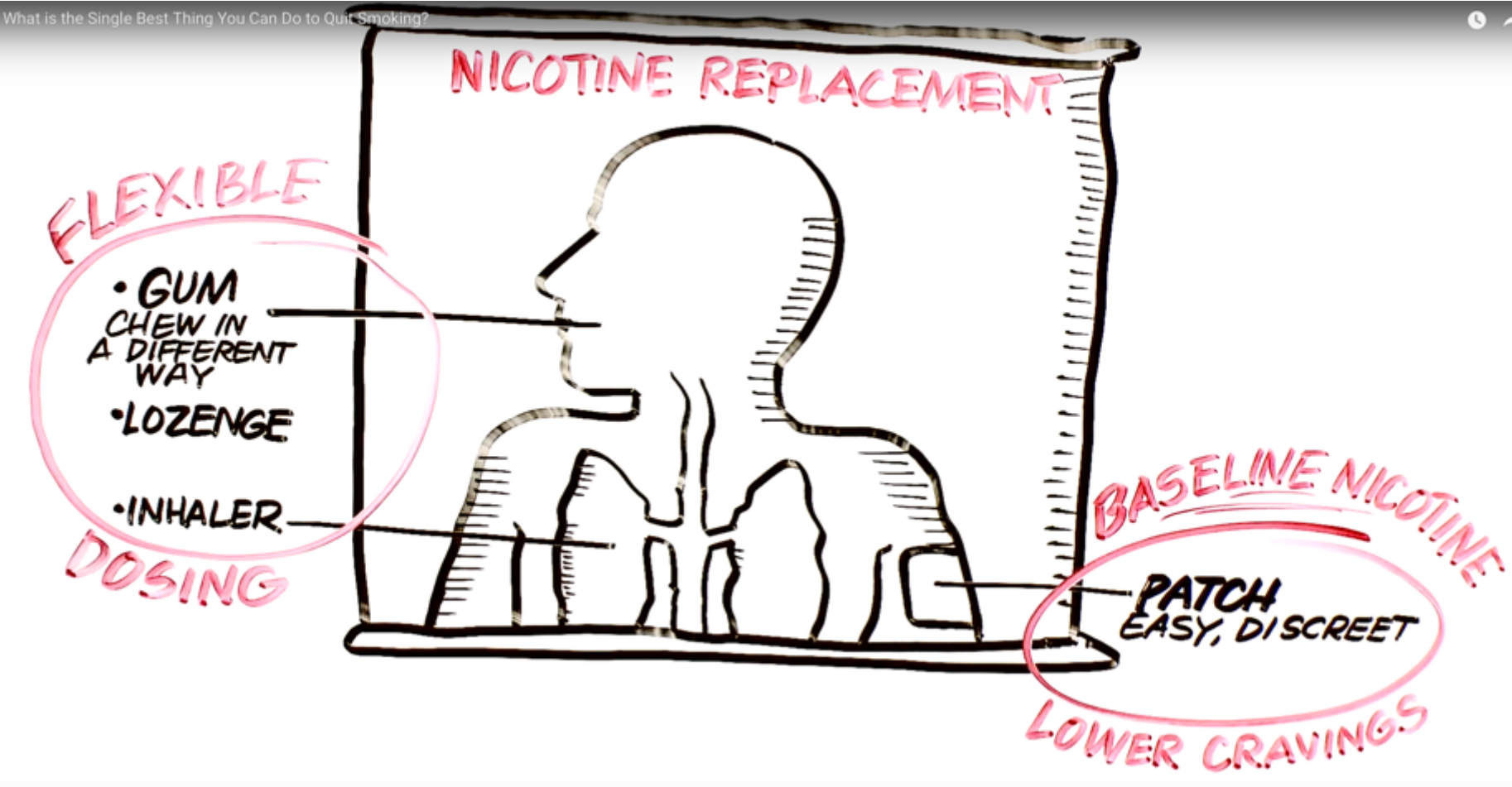


pharmacotherapy:
**WE'VE GOT
 A FEW
 OPTIONS**

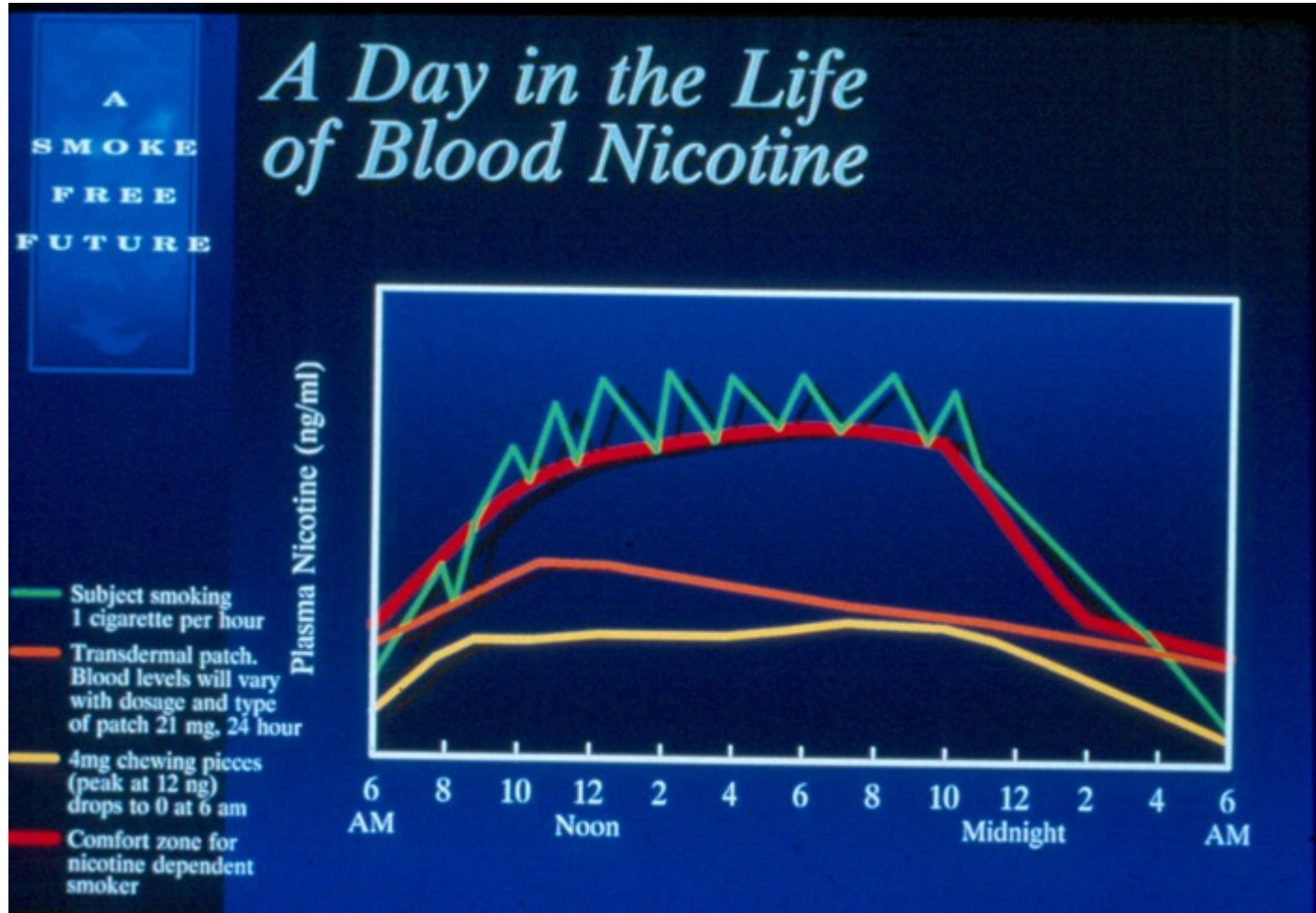
Generic/TRADE	Adverse Events AE / Contraindications CI ⁸ / Drug Interactions DI ⁸ / Monitor M / Comments	Dosing
Nicotine Replacement Therapy (NRT): patch, gum, lozenge, inhaler, & spray via buccal mucosa absorption - all OTC. ↑abstinence 1.5 – 2 fold vs placebo (NNT=10). ⁹ No statistical difference between form based on AE, CI, & patient preferences. Combining NRT forms (e.g. patch + gum) may ↑ efficacy. General AE caution: some smoking withdrawal effects may masquerade as AEs. General CI: caution in rec some suggest safer than smoking). ¹⁰ May smoke with NRT. General M: individualize dose - ↑ if withdrawal; ↓ if AE. If no response in 4 wks, stop, reassess. May consider re-initiating at a future date. Note: some long-term results no better than placebo. ¹¹ Effectiveness may depend on co-interventions &/or highly motivated patients! Pregnancy: smoking associated with negative birth outcomes. Abstinence rate vs placebo, but nicotine levels generally ↓ than with smoking. ^{12,13} NRT (patch) vs smoking associated with ↓ risk of: prematurity & small-for-gestational-age infants. Encourage smoking cessation & NRT to		
Nicotine Patch NICODERM, HABITROL, g Actavis 7, 14, 21mg/day patch X ▼ ▼ → coverage for 140 NICODERM patches or 168 HABITROL patches per year NICODERM: reservoir (don't cut) HABITROL: matrix Clear or flesh color. Both brands contain aluminum → remove prior to a MRI procedure	Apply new patch to clean, dry, non-hairy area every day in the morning. <ul style="list-style-type: none"> AE: skin irritations 32% (may treat with ICS), headache ~20%, insomnia & nightmares (if worn at night - remove patch if needed). CI: hypersensitivity to components; eczema. NOT contraindicated in pts with CVD.¹⁴ Smoking with patch: may ↑AE, but not a direct CI. Convenient once daily dosing, slow constant release rate, more tolerable AE; fewer CV events, option after MI (officially if >2 wks).³ Individualize dose. Combination with gum/lozenge/inhaler/spray prn may ↑ success (produces nicotine spike during cravings, NICORETTE COMBOQUIT patch & gum combo). Starting 1-4 weeks before quit date may ↑ success. If morning craving, keep patch on 24 hours and consider combo with gum, lozenge, etc. Two patches may be required in heavy smokers. May taper as per dosing schedule, but not necessary. Peak after 6-12 hours and half-life of 4 hours. Unlabeled use: ulcerative colitis ~21 mg/day. Pregnancy: If possible, apply patch for only 16 hours/day to ↓ embryo-fetal exposure. 	If ≥10 ciga 21mg/d 14mg/d 7mg/d ; If <10 ciga <45kg &/c 14mg/d 7mg/d ;
Nicotine Gum NICORETTE, THRIVE, g Actavis, Zonnic 2, 4mg gum X ▼ ▼ → coverage for 945 gum/loz/cartridges per yr NICORETTE flavours: mint, cinnamon, fruit THRIVE flavours: mint, fruit	<ul style="list-style-type: none"> AE: cough, throat irritation (usually mild), nausea/dyspepsia (from swallowed nicotine). Note: ~50% of the nicotine remains in gum after using.⁸ CI: dental problems, TMJ temporomandibular joint syndrome. Not advised for ↑ risk cardiac pts (consider patch). DI: coffee & acidic beverages (e.g. juice, pop) impair absorption → space by ≥15 minutes Chew and Park Strategy: chew gum few times, then hold in side of mouth x1min; repeat. Quick delivery via buccal mucosa. New formulations have improved taste (but some patients will dislike the "peppery" nature). Peak level after 30 minutes of chewing. Individualize dose. May gradually replace cigarettes with NRT (targeting specific cigarettes easiest to give up first) or may replace all cigarettes with prn NRT, then gradually wean off NRT. Risk of dependence - controversial (some feel long-term NRT better than long-term smoking). Pregnancy: possibly some preference for acute nicotine source (gum, etc.) over constant source (patch) to ↓ nicotine exposure. 	~1piece/h 20 piece 16/d. Ind May use pr
Nicotine Lozenge NICORETTE mint or cherry, THRIVE mint 1, 2, 4mg lozenge X ▼ 4mg mini lozenge ▼ → coverage for 945 gum/loz/inhaler per year	<ul style="list-style-type: none"> AE: soreness in gums, teeth, & throat; hiccups; heartburn/indigestion. CI: Not advised for ↑ risk cardiac pts (consider patch). Convenient, inconspicuous, good with dentures. Individualize dose. If first craving of the day within 30 minutes of awakening, consider 4mg lozenge; otherwise use 2mg. Flexible dosing schedule. Note: 2mg lozenge = 4mg gum. Mini lozenge dissolves faster, ~10 vs 20 minutes Suck and Park Strategy: suck until strong taste, then park, & repeat; lozenge lasts ~30min. Peak level after 30 minutes. Do not chew or swallow. Do not eat or drink 15 minutes before using or while lozenge is in mouth. 	1 loz. q1-2 q2-4hr x3v Max:15 x : 24 hrs
Nicotine Oral Inhaler NICORETTE 4mg [in 10mg cartridge] X ▼ Nicotine Oral Spray NICORETTE QUICKMIST 1mg spray X ⊗	<ul style="list-style-type: none"> AE: throat irritation 66%, cough 32%, rhinitis 23%, dyspepsia 18%. CI: Not advised for ↑ risk cardiac pts (consider patch). Individualize dose. May use flexible dosing schedule. Quick delivery convenient for severe cravings (note: still buccal mucosa, not pulmonary, absorption → slower absorption vs cigarette). Max absorption with short, continuous, frequent puffing. 10 puffs from inhaler = 1 cigarette puff. Patients with habitual hand-to-mouth motion may get benefit from oral inhaler. Once punctured, inhaler cartridge viable for 24 hours. 	6-16 cartri wk; indiv. cart/d. Us taper ove Nasal inhaler.
Antidepressants: BuPROPion (dopamine reuptake inhibitor), nortriptyline (tricyclic antidepressant). Abstinence rate at 12 mons: bupropion 18.5% vs 6.6% placebo (NNT=8); ¹⁵ nortriptyline 17% vs 7% using varenicline instead of bupropion (NNT=14). No extra benefit: adding bupropion or nortriptyline to CBT; ^{19,20} ?300mg bupropion vs 150mg. ²³ Bupropri		
BuPROPion ZYBAN, WELLBUTRIN, g 1-800-489-8424 150, 300mg XL tab ▼; 150mg SR tab ▼ XL tabs = once daily; SR tabs = BID SK & ▼ → coverage for 180 ZYBAN tabs per year	<ul style="list-style-type: none"> AE: 29% D/C due to AE.²¹ Insomnia (take SR 2nd dose early pm, and XL in am), agitation, tremor, ↓appetite, N/V, dry mouth. Seizure^{1/1000 at 300mg/d}, aggression/suicide? CI: personal/family hx of seizures, ↑ risk for seizures (e.g. eating disorders); head trauma, patients on MAO inhibitors within 14 days. DI: Metabolized by CYP2D6; inhibits CYP2D6. C₁₂, phenytoin, phenobarb, rifampin, inhibit cimetidine, cyclophosphamide. Not CI in pts with hx of CVD or on SSRIs. Only ZYBAN officially indicated for smoking cessation (drug coverage short term x3 months); however WELLBUTRIN & generic have been used. Good option in concomitant depression. May delay weight gain and food cravings post-smoking cessation. Slow onset (1-2 weeks). 	150mg SR d 150mg SR B • Begin ≥ 1 w cessation o • Wait ≥ 8hrs doses to ↓
Nortriptyline AVENTYL, g 10, 25mg cap	<ul style="list-style-type: none"> AE: dry mouth, dizziness, drowsiness, ↑weight. ↓AE vs amitriptyline. CI: ECG abnormalities (rare), suicidal/seizure risk Good option if also: pain, migraine, depression, neuropathy, insomnia. Start ~2wks before cessation of smoking; continue min 12wks. 	25-50-
Varenicline: nicotine receptor partial agonist - provides some stimulation of nicotine receptors, while also blocking nicotine from concurrent smoking. Abstinence rate at 12 months: varenicline 22% v; Potentially extra benefit: ↑ duration to 24 wks of therapy (NNT=15, but usually no drug coverage); ²⁴ combining NRT + varenicline (NNT=6); ²⁵ ↑ duration to 52wks in psych pts. ²⁶ No extra benefit: add		
Varenicline CHAMPIX USA: CHANTIX 0.5, 1mg tab (SK & ▼ → coverage for 165 tabs/yr)	<ul style="list-style-type: none"> AE: nausea 30%, sleep/dream 18%, taste disturbance, ↑BG, ?aggression. May delay weight gain. ↓AE requiring D/C vs bupropion (NNT>15). Serious: SJS?, depression & mood change. ↑CV risk? CI: end stage renal?; epilepsy?; suicidal? (FAA pilot ban. ^{Mov/08} FDA warning removed Dec/16) DI: ↑ nausea with NRT; ↑ intoxication/amnesia with alcohol. Set a quit date for 1-2 weeks after starting. 2wk Starter Packs and Continuation Packs available. Efficacy in ACS pts. ^{EWTA} (abstainers ↑ 5.5kg Wt/in 1yr) 	0.5mg daily 0.5mg BID C may ↑ 1mg • Take with l



NICOTINE REPLACEMENT THERAPY (NRT)



WHAT'S THE RIGHT DOSE?



i.e.

Whatever it takes

↑ abstinence 1.5-2X vs. placebo (NNT=10-17)

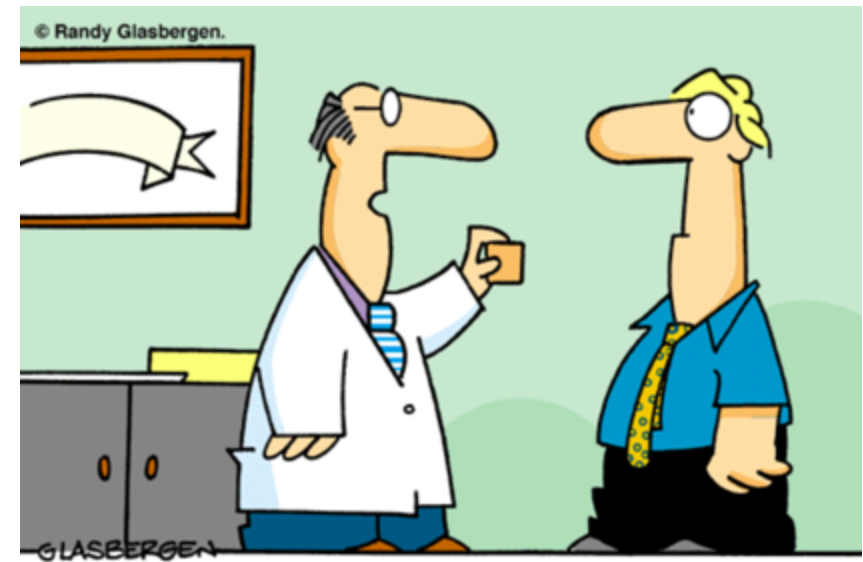
(no statistical difference between formulations)



UNREGIMENTED REGIMENS

- Patch alone, 24 hrs
- Patch alone, off at night
- Oral alone, scheduled
- Oral alone, prn
- Patch + scheduled oral
- Patch + prn oral

* Technically (statistically),
 combo NRT > single NRT
 (NNT = 20)?



“I’m prescribing a patch to help you quit smoking. Wear it over your mouth.”

Nicotine Replacement Medications	Time Until Highest Level of Nicotine in Bloodstream
Smoking	7-10 seconds
Gum	20-30 minutes
Patch	2-6 hours
Inhaler	80 puffs = 1 cigarette
Lozenge	20 - 30 minutes



NRT CONSIDERATIONS

	pros	cons
patch	Once daily Discreet Preferred post-MI?	Slow to start Skin irritation (32%)
gum	Flexible dosing Easy to disguise	Chew + park Dental issues, dentures Cough, throat irritation, dyspepsia
lozenge	Flexible dosing Easy to disguise	Suck + park Cough, throat irritation, dyspepsia
inhaler/spray	Quickest delivery Hand-to-mouth	Cough, throat irritation, dyspepsia Cost (>2X other oral)



SMOKING CESSATION

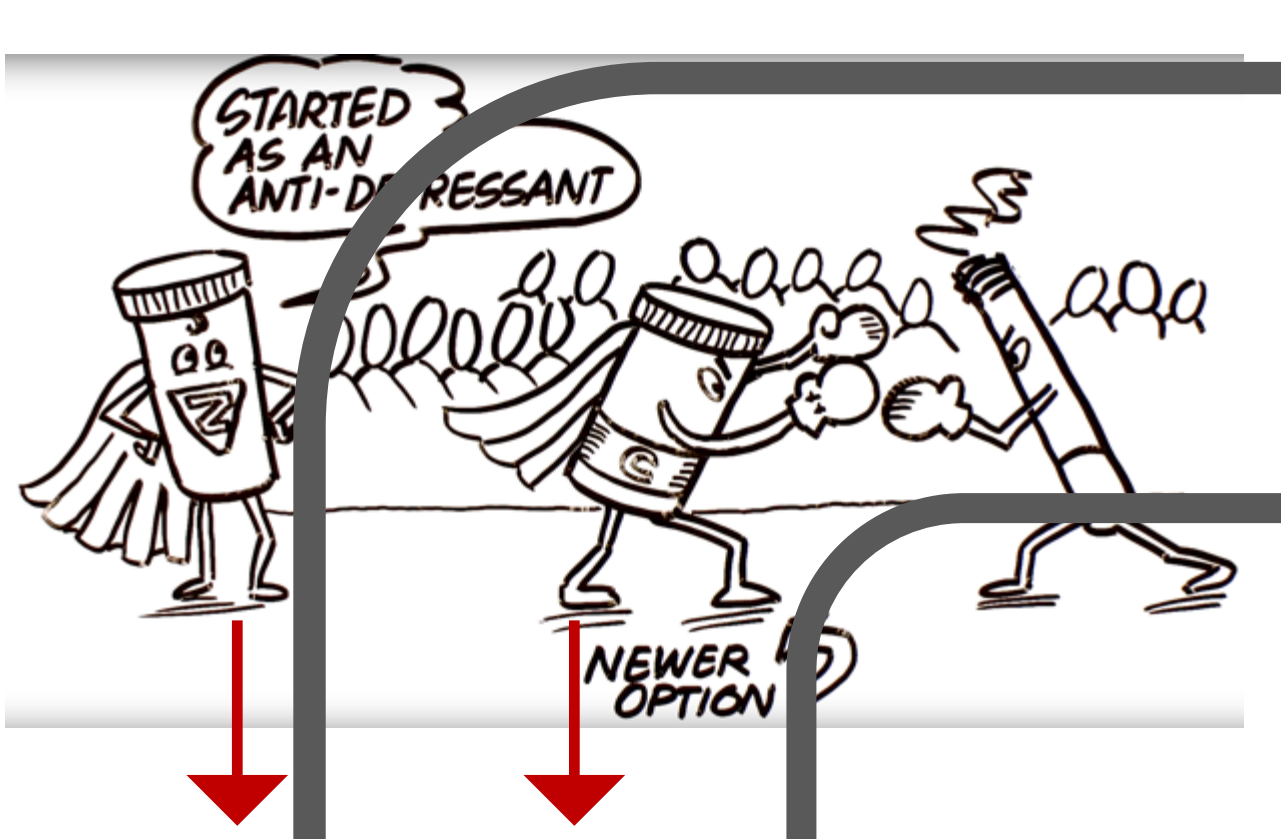
Generic Name	Brand Name	Strength	Usual Dosing	Cost	Per Unit Cost	Coverage	
						Pharmacare	NIHB
Nicotine Replacement Therapy							
Nicotine Patch	Generic (TEVA)	21mg, 14mg, 7mg	21mg/d x 6wk 14mg/d x 2wk 7mg/d x 2wk	\$160/10 week treatment	\$16/7 patches (all strengths)	N	Y ^d
	Habitrol	21mg, 14mg, 7mg	21mg/d x 4wk 14mg/d x 2wk 7mg/d x 2wk	\$162/8 week treatment	\$20/7 patches (all strengths)	N	Y ^d
	Nicoderm	21mg, 14mg, 7mg	21mg/d x 6wk 14mg/d x 2wk 7mg/d x 2wk	\$273/10 week treatment	\$27/7 patches (all strengths)	N	Y ^d
Nicotine Gum	Generic (TEVA)	2mg	12 pcs/day		\$17/110 pcs	N	Y ^d
	Thrive	4mg	12 pcs/day		\$32/108 pcs	N	Y ^d
	Nicorette	2mg	12 pcs/day		\$34/105 pcs	N	Y ^d
	Nicorette	4mg	12 pcs/day		\$34/105 pcs	N	Y ^d
Nicotine Inhaler	Nicorette	Cartridge	Maximum 12/day		\$34/42 refill cartridges	N	Y ^d

**I'LL TAKE
NICOTINE
FOR \$16-34,
ALEX**

945 gum pieces/yr
945 inhaler cartridges/yr
140-168 patches/yr



NON-NICOTINE OPTIONS



bupropion vs. varenicline

- Dopamine reuptake inhibitor → ↓ symptoms of nicotine withdrawal (e.g. anxiety & irritability)

\$85/12 wk course

- Nicotine partial receptor agonist → acts like a weaker kind of nicotine & blocks nicotine from getting to the nicotine receptors

\$334/12 wk course



HOW DO THEY COMPARE CLINICALLY?

ABSTINENCE RATES (@1yr)

- bupropion vs. placebo
- varenicline vs. placebo
- varenicline vs. bupropion
- varenicline vs. NRT
- bupropion vs. NRT

NNT

8-10

8

14

21

No difference



Original Investigation

Effects of Nicotine Patch vs Varenicline vs Combination Nicotine Replacement Therapy on Smoking Cessation at 26 Weeks

A Randomized Clinical Trial

JAMA 2016;315(4):371-379



- Non-ACS patients (n=1086)

- Intervention:

- **nicotine patch** only
- **varenicline** only
- **nicotine patch + nicotine lozenge**

} + 6 counseling sessions

- Abstinence @ 26 wks...

* All interventions similar

ADVERSE EVENTS (~NNH):

NRT > V... rash = 5

V > NRT... nausea = 5

insomnia = 10

vivid dreams = 15

sleepiness = 10

MY TOP "MENTIONABLE" SIDE EFFECTS

▪ VARENICLINE

- Nausea (up to 1/3)
- Insomnia
- Abnormal dreams
- Aggression?

▪ BUPROPION

- Insomnia (up to 1/3)
- Agitation
- Nausea/↓ appetite
- Seizure (~1/1000)



I JUST
QUIT
SMOKING
DON'T F
WITH ME

Philly B. Fashion Co.

Withdrawal symptoms (physiological) are better after **1-3 wks**



**ON A
RELATED
NOTE...**

FDA revises description of mental health side effects of the stop-smoking medicines Chantix (varenicline) and Zyban (bupropion) to reflect clinical trial findings

[12-16-2016] Based on a U.S. Food and Drug Administration (FDA) review of a large clinical trial that we required the drug companies to conduct,¹ we have determined the risk of serious side effects on mood, behavior, or thinking with the stop-smoking medicines Chantix (varenicline) and Zyban (bupropion)^{*} is lower than previously suspected. The risk of these mental health side effects is still present, especially in those currently being treated for mental illnesses such as depression, anxiety disorders, or schizophrenia, or who have been treated for mental illnesses in the past. However, most people who had these side effects did not have serious consequences such as hospitalization. The results of the trial confirm that the benefits of stopping smoking outweigh the risks of these medicines.

As a result of our review of the large clinical trial, we are removing the *Boxed Warning*.

Neuropsychiatric safety and efficacy of varenicline, bupropion, and nicotine patch in smokers with and without psychiatric disorders (EAGLES): a double-blind, randomised, placebo-controlled clinical trial

Lancet 2016; 387: 2507–20



Neuropsychiatric safety and efficacy of varenicline, bupropion, and nicotine patch in smokers with and without psychiatric disorders (EAGLES): a double-blind, randomised, placebo-controlled clinical trial *Lancet* 2016; 387: 2507–20

CAUTIOUS REASSURANCE

- **Who?** → n=8144 (~50/50 psych/non-psych cohort)
 - **Psychiatric cohort:** only ~50% on psych meds, depression/anxiety scores borderline, stable X 6 months
- **What?**
 - placebo vs. nicotine patch (21 mg/d with taper) vs. varenicline (1 mg BID) vs. bupropion (150 mg BID) X 12 wks

Results:

- Cessation rates @24 wks: **no difference**
- Neuropsychiatric adverse events

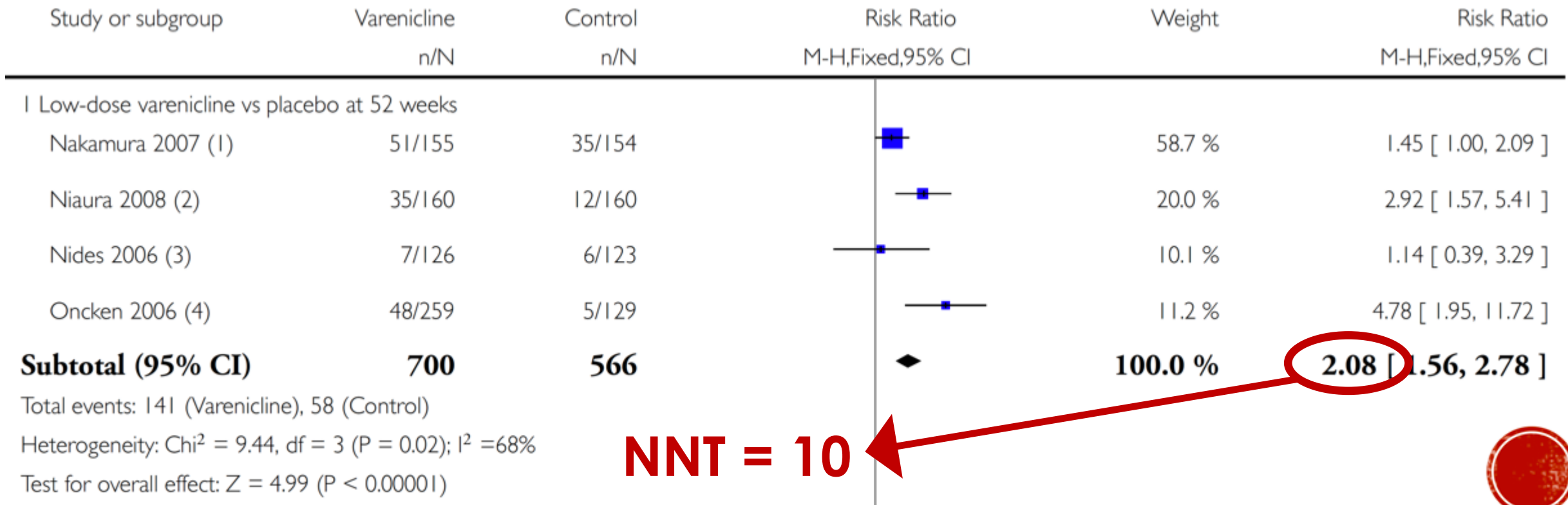


	Non-psychiatric cohort* (n=3984)				Psychiatric cohort* (n=4074)			
	Varenicline (n=990)	Bupropion (n=989)	Nicotine patch (n=1006)	Placebo (n=999)	Varenicline (n=1026)	Bupropion (n=1017)	Nicotine patch (n=1016)	Placebo (n=1015)
Primary composite neuropsychiatric endpoint	13 (1.3%)	22 (2.2%)	25 (2.5%)	24 (2.4%)	67 (6.5%)	68 (6.7%)	53 (5.2%)†	50 (4.9%)
Estimated primary composite neuropsychiatric adverse events (% [95% CI])	1.25% (0.60 to 1.90)	2.44% (1.52 to 3.36)	2.31% (1.37 to 3.25)	2.52% (1.58 to 3.46)	6.42% (4.91 to 7.93)	6.62% (5.09 to 8.15)	5.20% (3.84 to 6.56)	4.83% (3.51 to 6.16)

IF MY PATIENT IS NAUSEOUS, CAN THEY USE 1/2 DOSE?

CDSR 2016, Issue 5. Art. No.: CD006103

Analysis 7.2. Comparison 7 Variations in usage, Outcome 2 Non-standard dose varenicline versus placebo at 52 weeks.



CMAJ

2011

THE CV SAGA CONTINUES?

Risk of serious adverse cardiovascular events associated with varenicline: a systematic review and meta-analysis

↑ 2.4 CV events/1000 patients

Reviewed: July 26, 2016

Evidence Updated: New evidence



Varenicline and Cardiovascular Risk – Is the Cure Worse than the Affliction?

Clinical Question: Does smoking cessation with varenicline (Champix®) increase the risk of cardiovascular disease (CVD)?

Bottom Line: Varenicline does not appear to increase the risk of cardiovascular events over placebo or other smoking cessation drugs. Smoking cessation is the most effective intervention to reduce CVD risk. Varenicline is at least as good as other medications for cessation and may be slightly better.

But then...

Apr 1, 2018 *Am J Respir Crit Care Med* 2018;197(7):913–922

Cardiovascular and Neuropsychiatric Events after Varenicline Use for Smoking Cessation

- Observational study of 56,851 varenicline users

The incidence of cardiovascular events was 34% higher in the risk compared with the control interval

= ↑ 4 CV events/1000 patients over the 12 wk exposure interval

But finally, Apr 9, 2018... *JAMA Intern Med* 2018;178(5):622-631

Cardiovascular Safety of Varenicline, Bupropion, and Nicotine Patch in Smokers

A Randomized Clinical Trial (i.e. EAGLES → + 28 more wks of CV follow-up)

Bottom line: smoking cessation treatments did not ↑ risk of serious CV events
(caveat: in mostly low-CV risk patients, mean age 48)

WOULD LIKE TO MAKE THAT A COMBO? (i.e. ARE 2 BETTER THAN 1)



- NRT + NRT → Maybe
- Bupropion + NRT → Maybe
- Varenicline + bupropion → NO
- Varenicline + NRT → Yes? (NNT=6) → Why?

What about prolonged treatment?

- Varenicline X 24 wks vs. 12 wks → NNT = 15





Cochrane
Library

Cochrane Database of Systematic Reviews

Interventions for smoking cessation in hospitalised patients (Review)

Rigotti NA, Clair C, Munafò MR, Stead LF CDSR 2012, Issue 5. Art. No.: CD001837

**STRIKING
WHILE THE
IRON IS HOT**

Authors' conclusions

High intensity behavioural interventions that begin during a hospital stay and include at least one month of supportive contact after discharge promote smoking cessation among hospitalised patients. The effect of these interventions was independent of the patient's admitting diagnosis and was found in rehabilitation settings as well as acute care hospitals. There was no evidence of effect for interventions of lower intensity or shorter duration. This update found that adding NRT to intensive counselling significantly increases cessation rates over counselling alone. There is insufficient direct evidence to conclude that adding bupropion or varenicline to intensive counselling increases cessation rates over what is achieved by counselling alone.



Recommended Standards for the Evaluation/Treatment of Suspected Cardiac Chest Pain

Discharge practices:

- | | |
|-----------|--|
| 13 | ACS patients who are current smokers will be offered Nicotine Replacement Therapy (NRT) to start while in hospital to manage nicotine withdrawal. |
| 14 | ACS patients who are current smokers will be provided referral for smoking cessation counseling after discharge. <i>If unavailable in your community consider referral to smoker's Helpline</i> (www.smokershelpline.ca). |

NRT Decision Tree (SBGH), 2014:

⇒ Cardiac patients: NRT should be used with caution in patients in the immediate post-myocardial infarction period, those with a serious arrhythmia, and with unstable angina

WRHA Management of Tobacco Use and Dependence Clinical Practice Guideline, 2013:
Abstinence without NRT is preferred, but NRT may be safer than continued use

BEYOND SIMPLY MANAGING IN-HOSPITAL WITHDRAWAL

Intensive Smoking Cessation Intervention Reduces Mortality in High- Risk Smokers With Cardiovascular Disease*

CHEST 2007; 131:446–452

- Who?
 - n=209 smokers **after CCU admission**
- What?
 - **usual care:** counseling and printed educational material provided prior to hospital discharge
 - **intensive treatment:** a minimum of **12 wks** of behavior modification counseling and individualized pharmacotherapy (**NRT and/or bupropion**) at no cost

Results at 2 yrs : ■ **17% ARR** in hospitalization (NNT = 6)
■ **9% ARR** in mortality (NNT = 11) } Despite abstinence rates of <40%

(**context:** ASA provides a 1.4% reduction (NNT 72) in mortality in a similar population and time frame)



HOW ABOUT VARENICLINE?

THE **EVITA** STUDY

Circulation 2016;133(1):21-30

- In-hospital **ACS** patients (n=302)
Varenicline vs. placebo X 12 wks
- **Efficacy @ 24 wks:**
 - 7-day point-prevalence abstinence:
ARR=15%, NNT=7
 - Continuous abstinence: 35% vs. 25% →
ARR=10% (but p=0.08)
- **Harms**
 - **No ↑ in major harms** (including CV) 30-d after treatment d/c
 - Common adverse events
 - Nausea, insomnia, nightmares
→ NNH for each = **~20**



Important...

Received
46 min of
counselling

**So, a vote of
confidence for
varenicline
post-ACS**

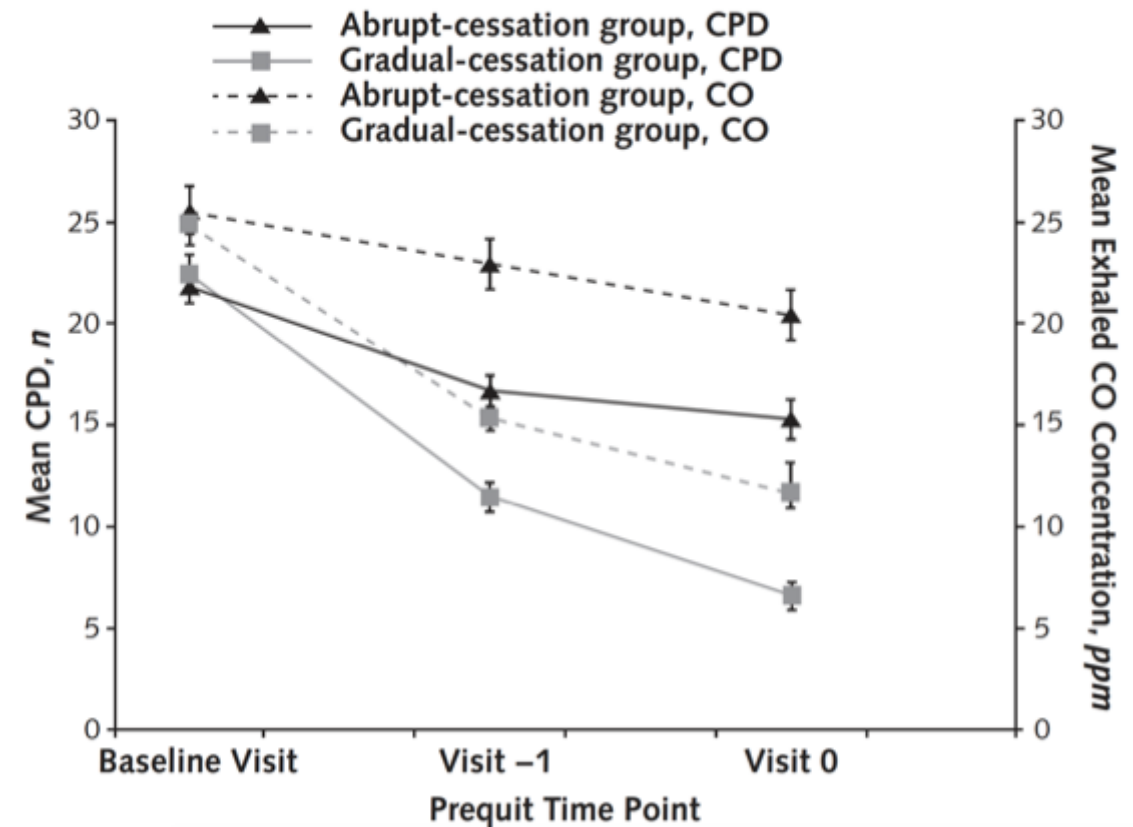
JUST QUIT ALREADY...

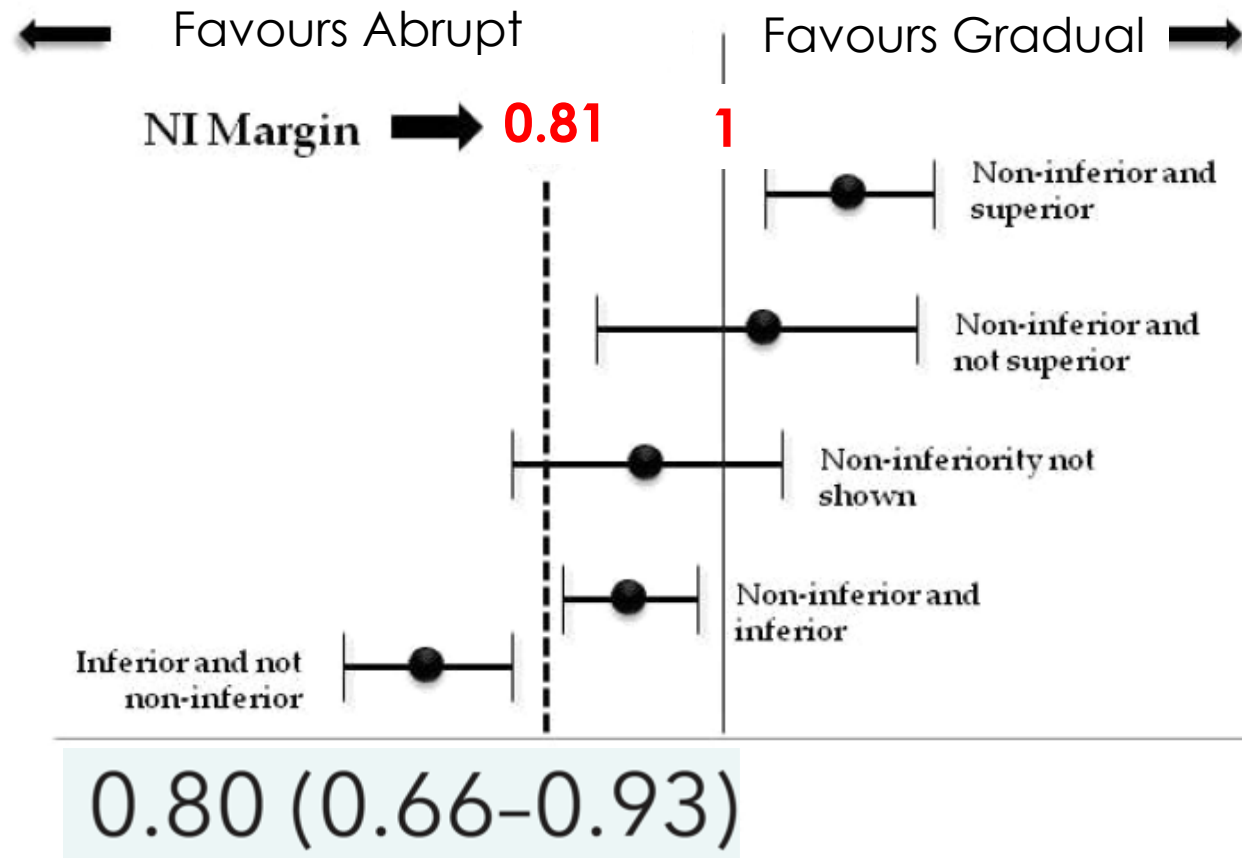
Annals of Internal Medicine

Gradual Versus Abrupt Smoking Cessation A Randomized, Controlled Noninferiority Trial

- n = 697 (median age 49 yrs, 20 cigs/day)
 - Efficacy @ **4 wks**, 8 wks, 6 months
 - Randomized (not blinded) to:
 - **Gradual Cessation (over 2 wks)**
 - **Abrupt Cessation**
 - Non-inferiority trial (margin: RR of 0.81)
 - NRT available to both groups (~80-90% used)

Figure 2. Prequit exhaled CO concentration and CPD, by trial group.





4 wk: NNT = 11
 8 wk: NNT = 14
 6 month: NNT = 15



Abstinence Outcome

Abstinence Outcome	Abstinent, n (%)		Absolute Difference (95% CI), percentage points	Relative Risk (95% CI)*
	Gradual-Cessation Group (n = 342)	Abrupt-Cessation Group (n = 355)		
Prolonged CO-validated Russell Standard abstinence†				
4 wk after quitting	134 (39.2)	174 (49.0)	9.8 (2.5-17.1)	0.80 (0.66-0.93)
8 wk after quitting	100 (29.2)	130 (36.6)	7.4 (0.4-14.3)	0.80 (0.63-0.95)
6 mo after quitting	53 (15.5)	78 (22.0)	6.5 (0.7-12.2)	0.71 (0.46-0.91)

OUTLINE

1. Smoking is the worst thing in the world → there's some truth to that
2. Round 10 is slightly less brutal than Round 1
→ each attempt is a step... support them through the journey
3. Essential resources in a time of resource minimization
→ many resources exist... help them navigate through what may work for them
4. Does your NRT regimen do yoga? → flexibility and buy-in are key
5. NRT, NRPA, NDRI, NNT & TNT... are the benefits of cessation treatment dynamite?
→ none of them are incredible, but they're all somewhat effective... what does the patient want?
6. Is trying to quit literally going to drive me crazy? → No, not likely from varenicline anyway.
7. Can smoking cessation be heart breaking?
→ varenicline is unlikely to cause CV events. If it does, the risk is very small.
8. Striking while the iron is hot → a present and motivated patient is likely worth the time
9. Sir, would you like to make that a combo? → adding more is often not much better
10. Just quit already... gradual vs. abrupt cessation → put your money on the cold turkey





QUESTIONS?

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