

# Optimizing the Medical Patient For Vascular Surgery

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# DISCLOSURE

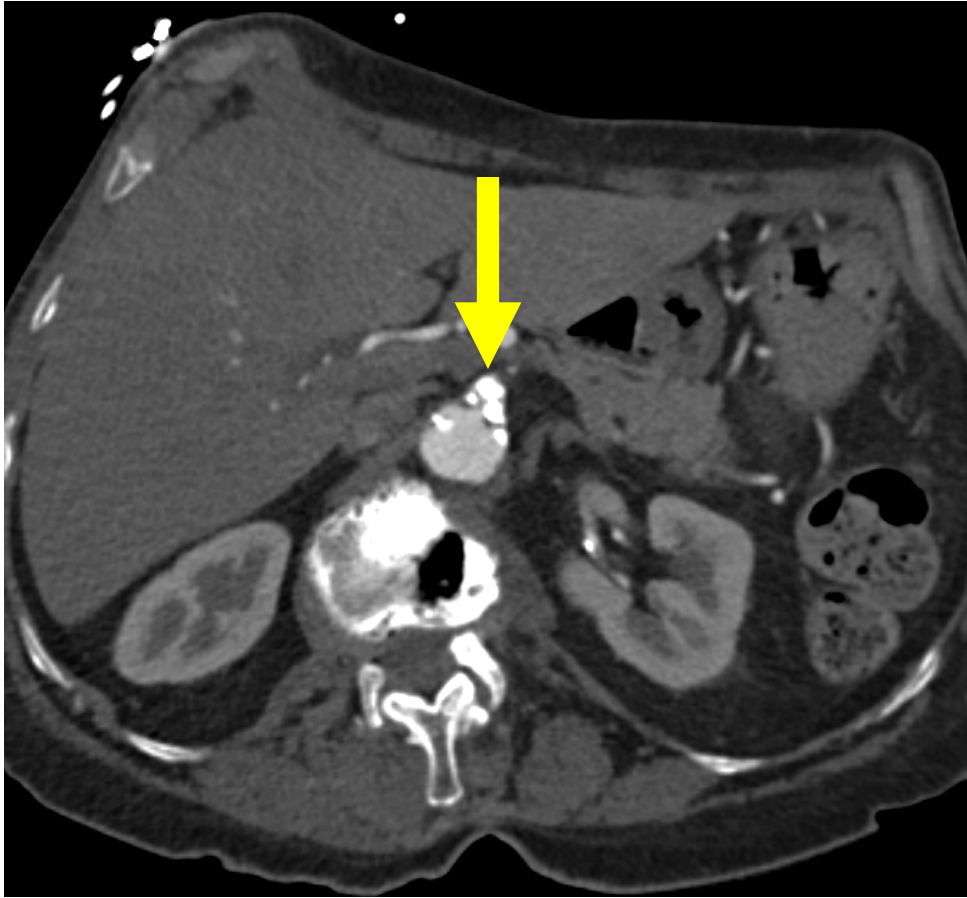
## Edie P. Shen MD

- No relevant financial relationship reported

# 65 year old Cattle Rancher

- Sept 2017 p/w severe postprandial abdominal pain
- 40 lb weight loss over months – 155 lb to 115 lb, 5'2"
- Very poor oral intake

# CTA: SMA Occlusion



# 65 year old Cattle Rancher

- HTN, past uterine CA
- Vitals HR 63 RR 16 98% RA
- November 7th – Scant wheeze with coughing, patient felt early congestion
- Suspected COPD with hyperinflation on CXR
- 1/2 ppd tobacco use; 6 pack beer nightly
- Nutrition

# 65 year old Cattle Rancher

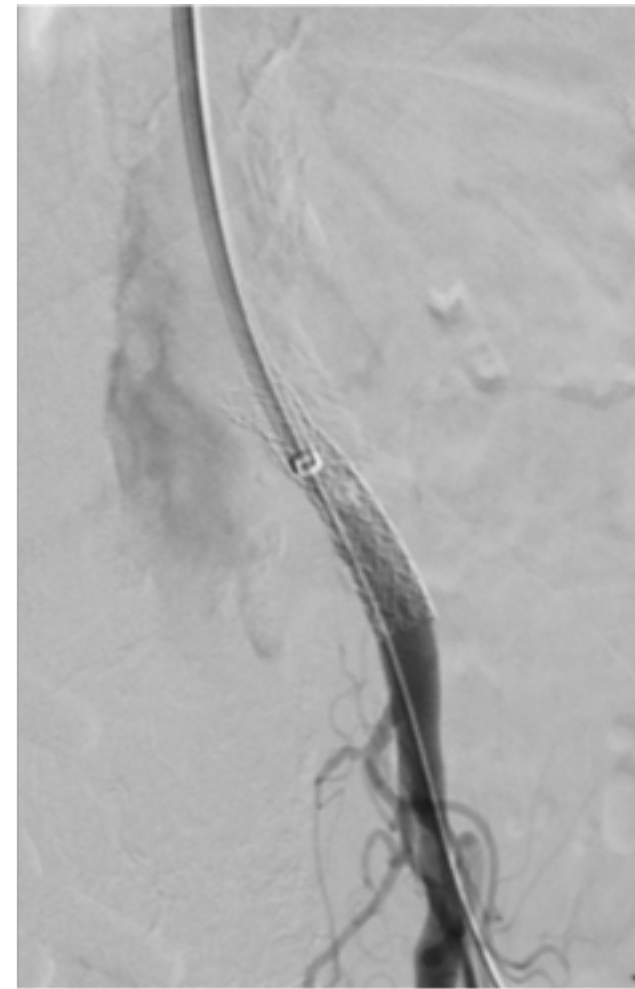
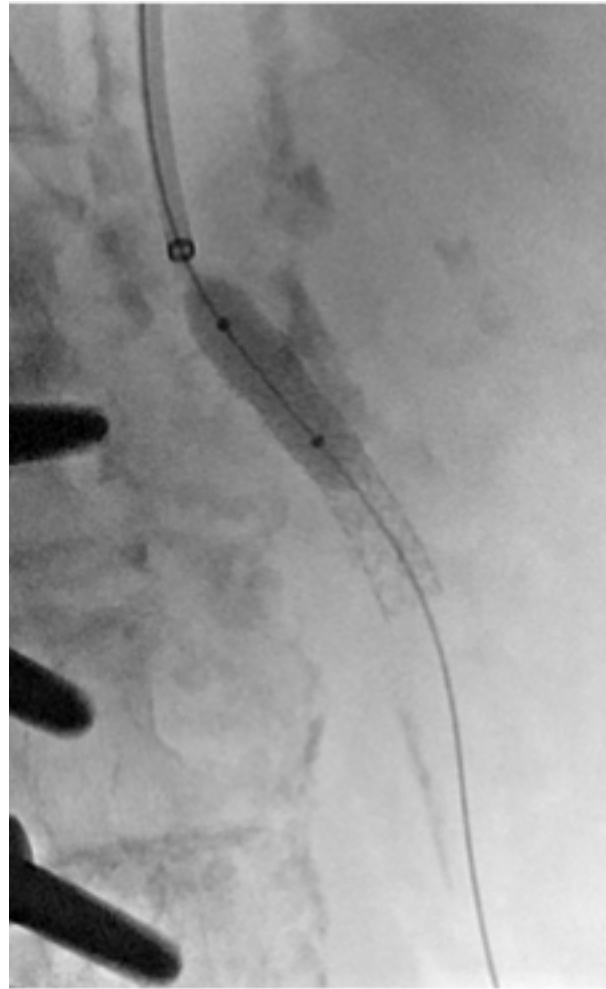
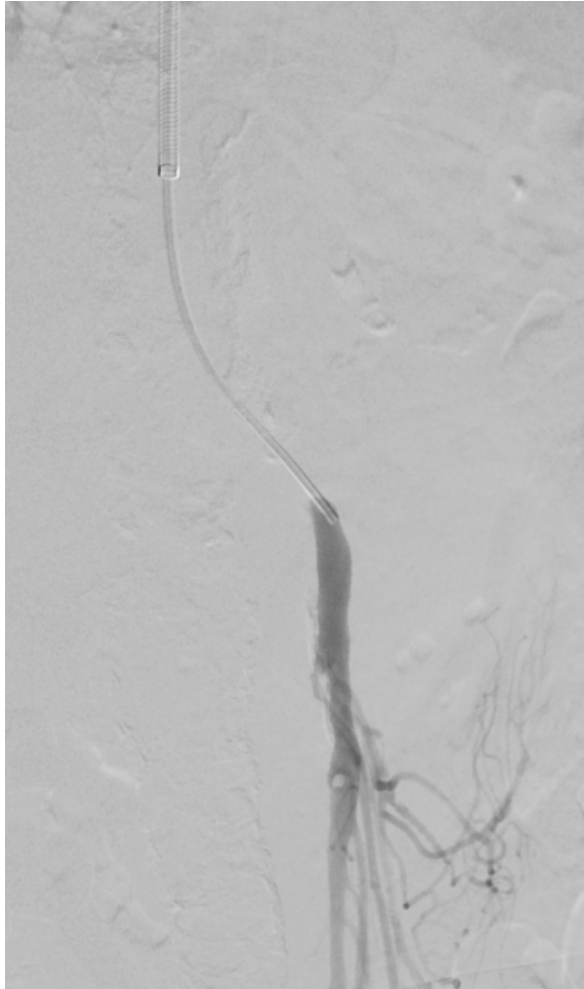
- Saw her PCP 3 days later – O2 sats down to 94 from 98%, diffuse wheezing
  - prescribed Advair and Albuterol
- One week f/u – wheezing resolved and O2 sats back to baseline

# Risks vs. Benefits

- Malnutrition
- Recent respiratory infection
- Possible undiagnosed COPD
- Daily etOH use
- Tobacco use

Meyers JR, et al. Arch Surg 1975;110:576

# Intervention 11/22/2017



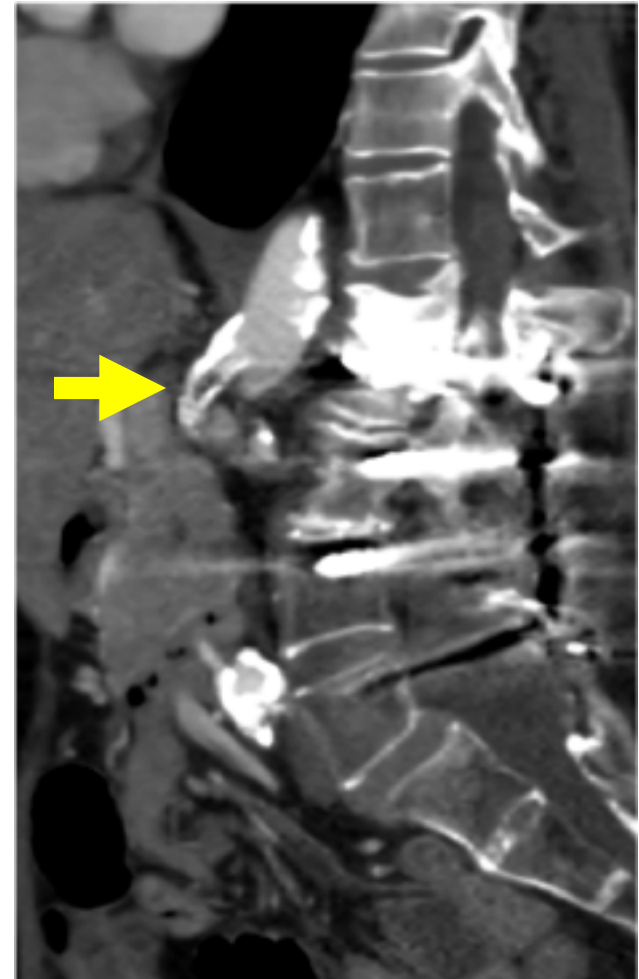
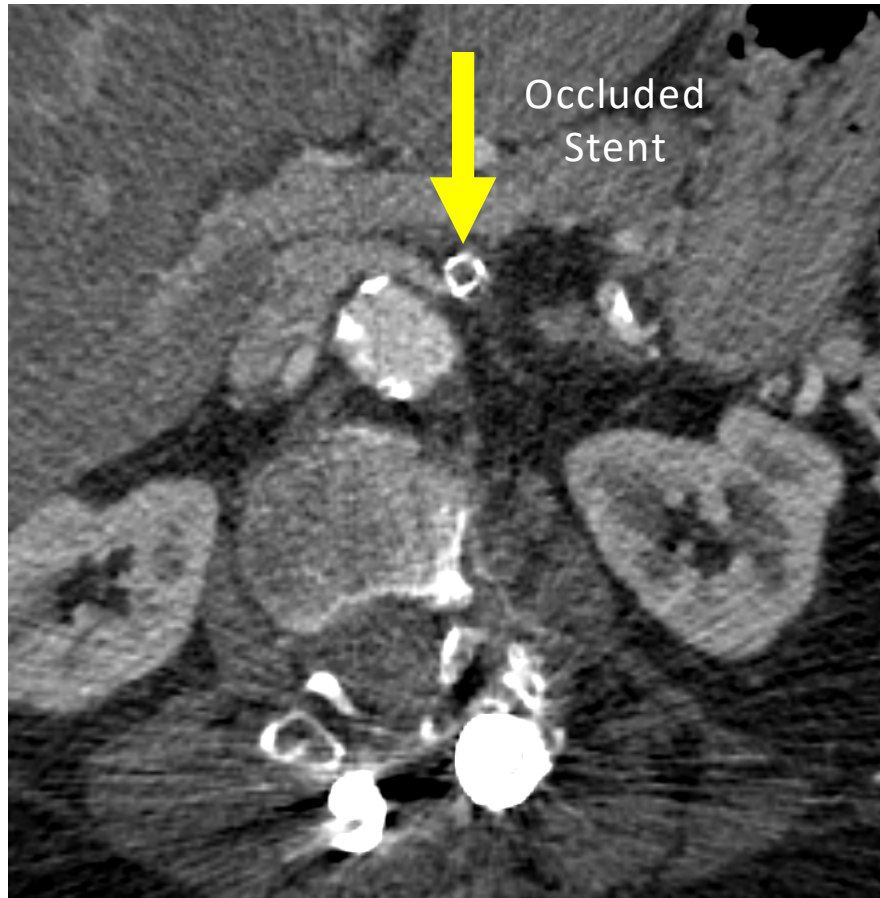


# 65 year old Cattle Rancher

- Returned to her home state in mid-November with resolution of her mesenteric ischemia symptoms
- She was able to gain 10-15 pounds with improved oral intake
- Stopped smoking for weeks but relapsed in early 2018

# Recurrence of Symptoms

June 2018



# RCT with blinded observers

- Brief RN counseling
- Smoking Cessation brochure
- Referred to smoker's helpline
- Free 6 week supply nicotine patch
- Efficacy at one year follow-up - RR 3 - 95% CI 1.2-7.8
- 25% quit in intervention group vs 8% control; NNT 5.9

# Odds of Success

**With help from a clinician, the odds of quitting approximately doubles.**



Fiore et al. (2008). *Treating Tobacco Use and Dependence: 2008 Update. Clinical Practice Guideline*. Rockville, MD: USDHHS, PHS, May 2008.

# A COMPREHENSIVE APPROACH...



- Every surgical patient has at least five points of contact when undergoing elective surgery
  - Initial surgical visit (scheduling)
  - Admission to facility
  - Preop visit by anesthesia provider
  - Discharge from facility
  - Post-op surgical visit
- Each provides an opportunity to provide reinforcing messages...if the surgical team can work together

# Tobacco Dependence

## Physiological

The addiction to nicotine



Treatment

Medications for cessation



## Behavioral

The habit of using tobacco



Treatment

Behavior change program

Treatment should address the physiological **and** the behavioral aspects of dependence.

# ASA Quit Card



# Therapeutic Options

**Nicotine polacrilex gum** (OTC) – brand (Nicorette), generic

**Nicotine lozenge** (OTC) – brand (Commit), generic

**Nicotine transdermal patch** (OTC, Rx) – brand (NicoDerm CQ, OTC), generic (OTC, Rx)

**Nicotine nasal spray** (Rx) – brand (Nicotrol NS)

**Nicotine inhaler** (Rx) – brand (Nicotrol Inhaler)

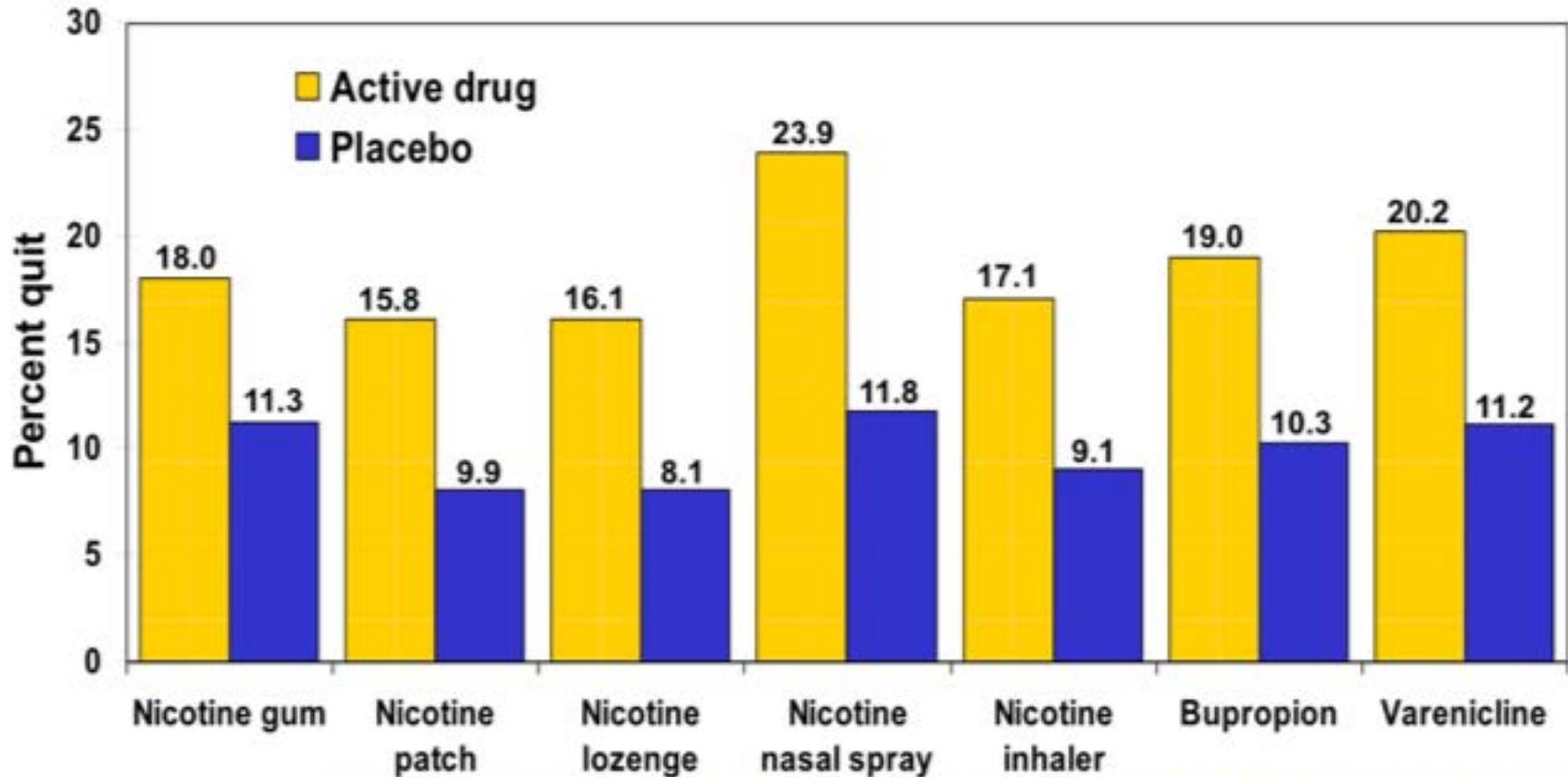
**Bupropion SR** (Rx) – brand (Zyban), generic

**Varenicline** (Rx) – brand (Chantix)

OTC = Over the counter

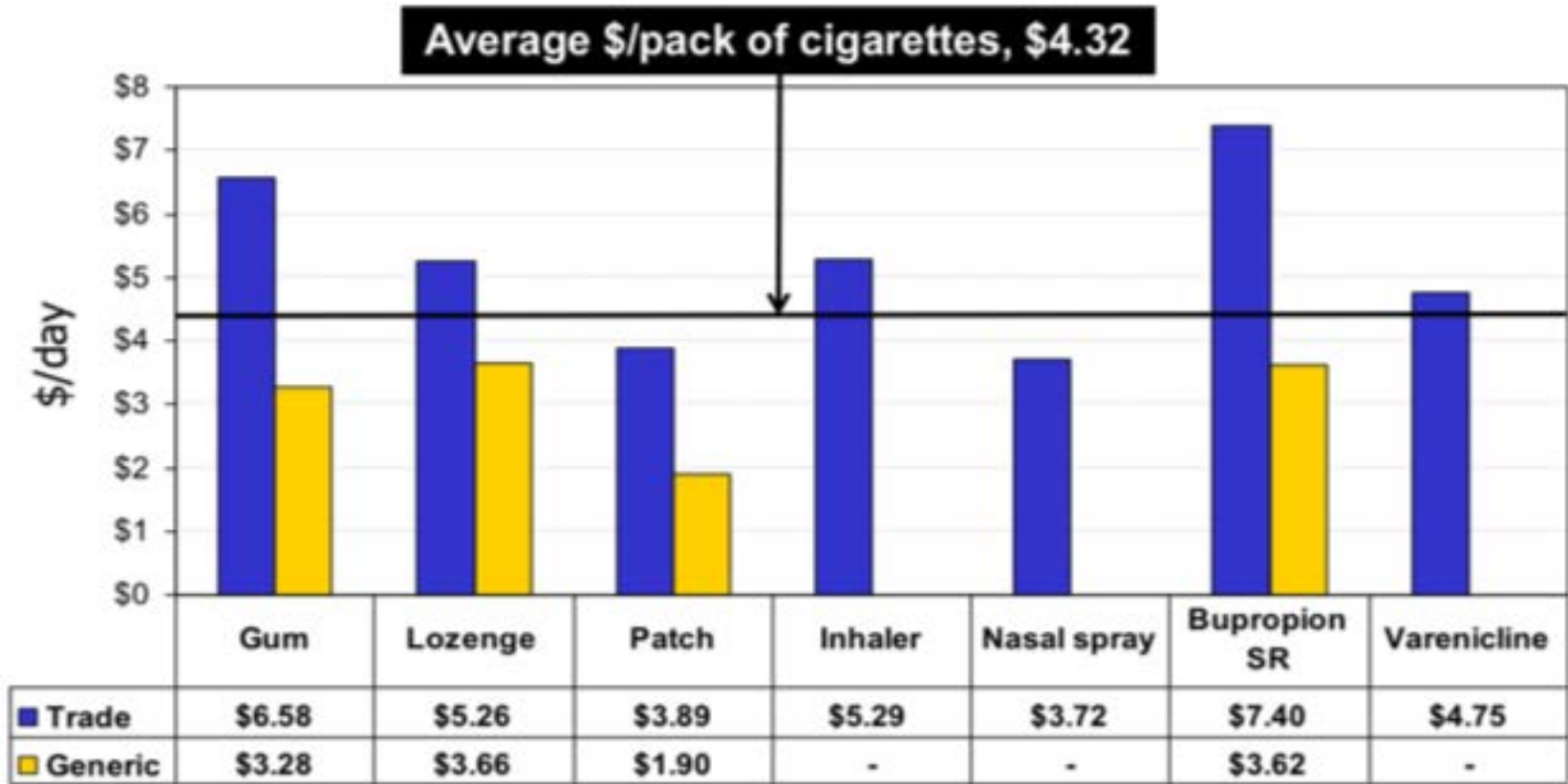


# Efficacy of Cessation Methods



Data adapted from Cahill et al. (2008). *Cochrane Database Syst Rev*; Stead et al. (2008). *Cochrane Database Syst Rev*; Hughes et al. (2007). *Cochrane Database Syst Rev*

# Cost of Cessation Methods



# Nicotine Patch

## Nicotine Transdermal System **PATCH KIT** Contains 21 mg, 14 mg and 7 mg delivered over 24 hours **STOP SMOKING AID**

INCLUDES ALL 3 STEPS



*Includes: Behavior  
Support Program  
with self-help guide*

### **STEP 1**

21 mg delivered over 24 hours  
Contains 28 Patches (4 week supply)

### **STEP 2**

14 mg delivered over 24 hours  
Contains 14 Patches (2 week supply)

### **STEP 3**

7 mg delivered over 24 hours  
Contains 14 Patches (2 week supply)

COMPLETE STOP SMOKING  
AID KIT – USE **ONLY** IF YOU  
SMOKE **MORE** THAN  
10 CIGARETTES PER DAY

**56**  
PATCHES

# Nicotine Gum

PLACE THESE REMINDERS ON YOUR CALENDAR:

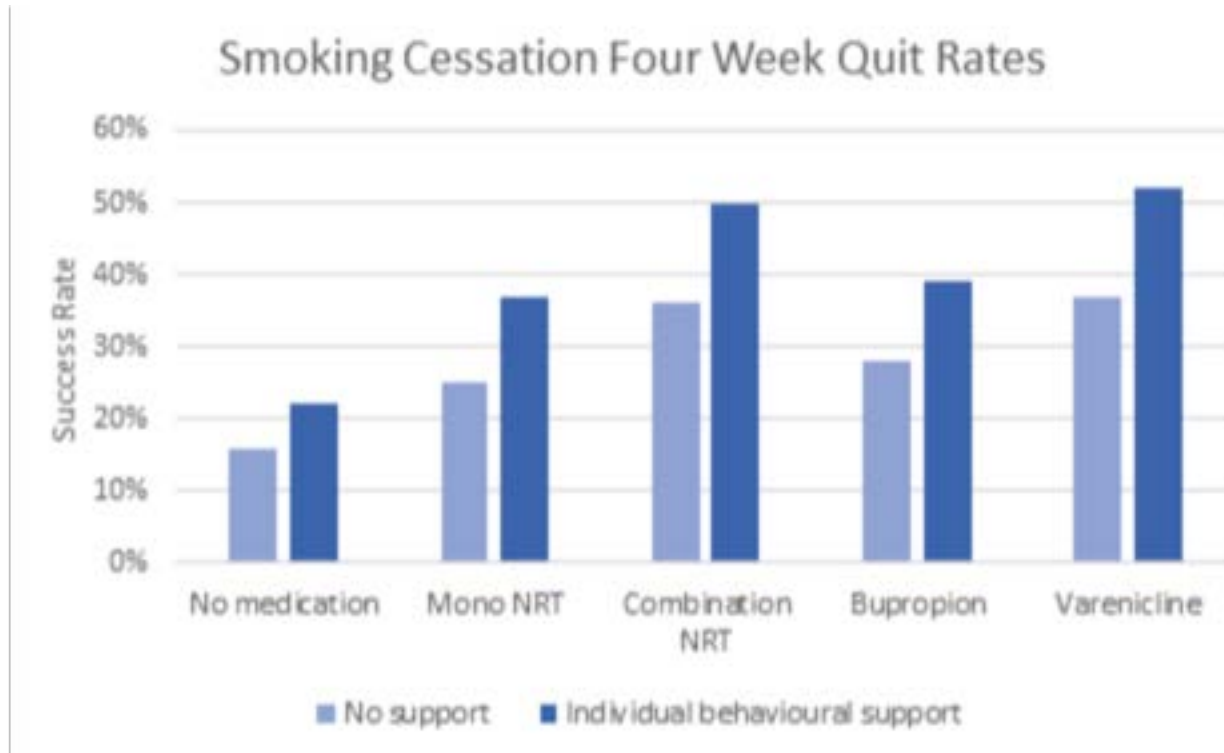
AT BEGINNING OF WEEK #1 (QUIT DATE)	AT BEGINNING OF WEEK #7
<b>STEP 1</b> 1 PIECE EVERY 1 TO 2 HOURS	<b>STEP 2</b> 1 PIECE EVERY 2 TO 4 HOURS
<b>STEP 3</b> 1 PIECE EVERY 4 TO 8 HOURS	<b>EX-SMOKER</b>
AT BEGINNING OF WEEK #10	12 WEEKS AFTER QUIT DATE



# Nicotine Lozenge



# Combination Nicotine Replacement



<http://www.gosmokefree.co.za/>

# Bupropion

- Nonnicotine cessation aid
- Oral formulation
- Sustained-release antidepressant
  - Atypical antidepressant thought to affect levels of various brain neurotransmitters (dopamine, norepinephrine)
- Clinical effects
  - ↓ craving for cigarettes
  - ↓ symptoms of nicotine withdrawal

UCSF Rx for Change 2016

# Varencline

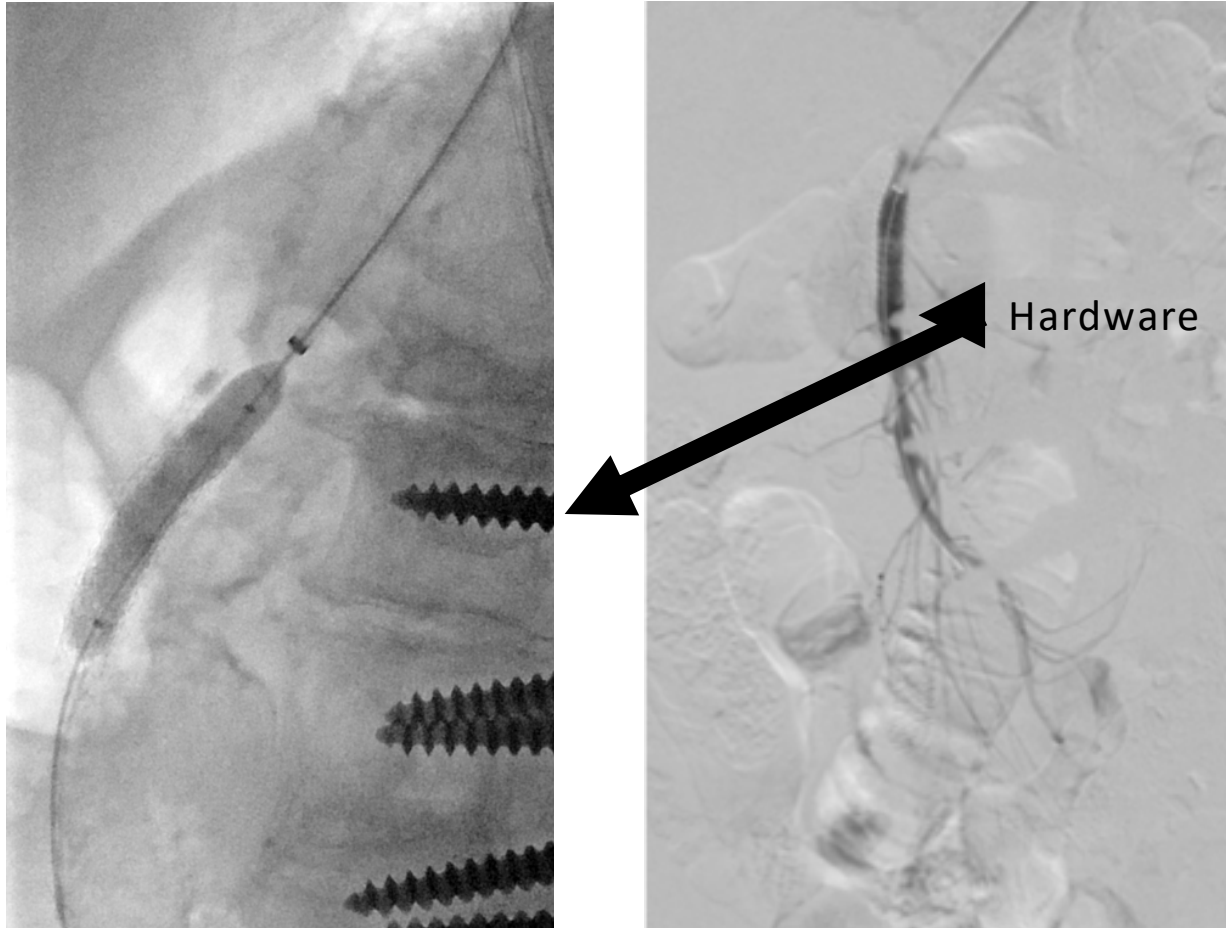
- Nonnicotine cessation aid
- Partial nicotinic receptor agonist
- Oral formulation
- Binds with high affinity and selectivity at  $\alpha_4\beta_2$  neuronal nicotinic acetylcholine receptors
  - Stimulates low-level agonist activity
  - Competitively inhibits binding of nicotine

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UCSF Rx for Change 2016



# Re-intervention 6/12/2018





The average smoker  
attempts to quit smoking  
**AT LEAST 8 TO 10 TIMES**  
before they quit successfully.