







#### Do people know it is bad?

 When seeing a patient who smokes should you tell them smoking is bad for them?

- Myth or Fact
  - Most people who smoke do not want to quit?
- What percentage of smoker's want to quit each year?







#### Why is it so hard to quit?

• What makes quitting smoking hard?

• What withdrawal symptoms can people expect?







#### Benefits

What are the health benefits of quitting?

How long dose it take to start seeing health benefits after quitting?







#### Help

- How can I help someone quit?
- What are the 5 As?
- If someone is serious when should they set their quit date:
- Are there medications that can help?
- When should we schedule follow up if someone is ready?







#### Medications

- What is the goal of prescribing medications?
- What classes of medications are used?
- What are the doses and do they change?
- When do people quit after starting medications?







# Diseases

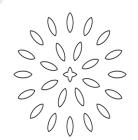
- Increases cancer deaths/year
  - Mostly lung cancer
- High Cardiovascular/metabolic deaths/year
  - Mostly heart attacks
- High Respiratory deaths/year
  - Mostly COPD



## **Risks from Smoking**

Smoking can damage every part of the body **Chronic Diseases Cancers** Stroke Head or Neck **Blindness**  Gum infection Lung • Aortic rupture Leukemia • Heart disease Pneumonia Stomach • Hardening of the arteries Kidney • Pancreas • Chronic lung disease Colon • & asthma Reduced fertility Bladder • Hip fracture Cervix •

# Why is it important to ask?



- Contributes to preventable deaths
- Mortality rate is 3x higher than nonsmokers

 Quitting before 40yo decreases risk of death by 90%





# People know its bad



#### Do no lecture about dangers

- Use motivational interviewing
- Has anyone told you smoking is bad for you?

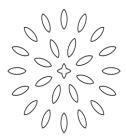
Myth: the majority of smokers want to quit

#### Many smokers try to quit/year

• Very few of those seek help



# Barriers to quitting



#### Nicotine is addictive

Physical dependence and tolerance

#### **Environmental triggers**

Coffee, meals, EtOH, sporting events, etc.

#### Withdrawal syndrome

- Dysphoria/depression, insomnia, irritability/frustration/anger
- Anxiety, difficulty concentrating, restlessness
- Decreased heart rate
- Increased appetite or weight gain
  - Decreases after week 1, minimal at week 3



# Quitting is good



- In 20 minutes... Your heart rate and blood pressure decrease.
- In 12 hours.....Carbon monoxide levels return to healthy levels
- In 2 weeks 12 weeks... Risk of heart attack begins to decrease, and lung function improves.
- In 1-9 months... Coughing and shortness of breath decrease.
- By 1 year... Your risk of heart attack is sharply reduced.
- By 5 years... Your risk of heart attack and stroke is cut in half.
- By 10 years... Your risk of lung cancer death is cut in half.
- By 15 years...Your risk of a heart attack is similar to a non-smoker



#### Best practices



## Assess readiness to quit (5As)

 Ask, advice, assess, assist, arrange

#### Set date to quit within 4 weeks

 Slowly weaning does not lead to cessation

#### Refer to a quit resource

- <u>WHO</u>
- CDC

#### Rx based on preference

- NRT
- Varenicline
- Bupropion SR

## F/U 3-7 days after quit date

- In-person
- Virtual
- Phone call
- Portal message



#### Pharmacotherapy



#### Goals

- Relieve withdrawal symptoms
- Reduce reward/reinforcing aspect

#### **Categories**

- Nicotine replacement
  - Patch plus
- Bupropion
- Varenicline
- Can combine multiple categories with increased success

#### Nicotine replacement therapy



Patch plus

Gum chew and park

Lozenge

Inhaler not commonly prescribed

Nasal spray not commonly prescribed

All equal in efficacy

All superior to placebo

May benefit men>women

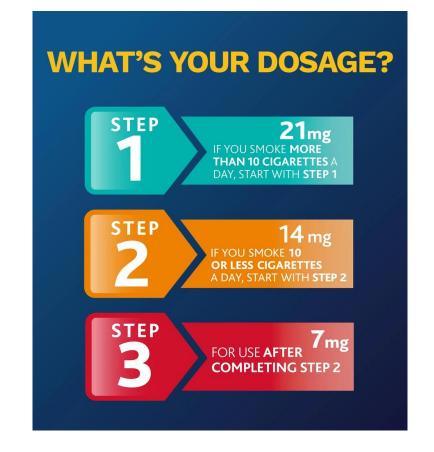
# Nicotine Replacement Therapy Patch (plus)

#### Pros

- Long acting, slow onset, 24hour relief
- High compliance
- Doubles success compared to placebo patch

#### Cons

- Cannot adjust
- Skin irritation





# Nicotine replacement therapy Patch (plus)



#### Doses: 21mg, 14mg, 7mg

- 14mg if <45kg, <10cig/day
- 21mg if above or smoke w/in 30 minutes of waking

#### **Tapered dosing**

• 21mg QD 4weeks, 14mg QD 2weeks, 7mg QD 2 weeks

Applied to non-hairy body part

**Rotate daily** 

Use at least 8 weeks

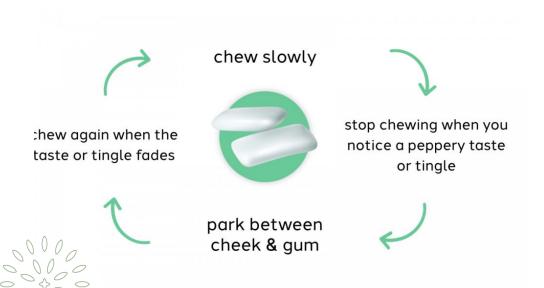
**Always "Patch Plus"** 

# Nicotine Replacement Therapy plus gum

- 2mg and 4mg
- Absorbed through oral mucosa
  - Chew and park
- Peak blood concentration 20 minutes
- 2mg only produces 40% blood levels and cannot produce addiction/overdose



## Nicotine replacement therapy - plus gum



- Chew & Park
- prn for cravings
- Chew to taste
- Park in cheek (repeat)
- Replace gum every 30 minutes as needed per craving
- >25cig/day use 4mg, if less use 2mg

## Nicotine replacement therapy - plus lozenge



- Similar to gum in pharmacokinetics
- 2mg, 4mg
- 4mg for CAGE "E" positive
- 1-2 lozenge/hour prn cravings for 6 weeks then taper

#### **Bupropion SR**

- a.k.a. Wellbutrin SR
- Enhances CNS noradrenergic and dopaminergic release
- A.E. insomnia, agitation, dry mouth, headache
- Contraindicated with seizure d/o or predisposition
- Good choice with co-morbid depression/anxiety





# **Bupropion SR**

- Instructions....start 10 days prior to quit date
- Start Bupropion SR 150mg daily x3 days
- Increase to Bupropion SR 150mg bid
- Can be combined with NRT
  - (increases success)
- 12 week course (up to 6 months)
- Call or office f/u 1-2 weeks after starting

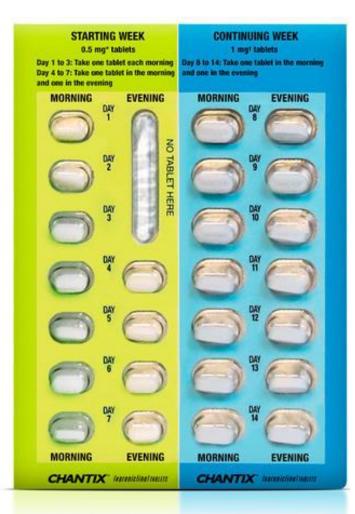


# Varenicline (currently off market)

- a.k.a. chantix
- Partial agonist: reduces withdrawal
- Blocks nicotine in smoke: reduces reward
- Can be combined with NRT
  - Increases success
- Banned by FAA for pilots and air traffic control
- Can be used safely with co-morbid mental illness







# Varenicline (currently off market)



- Start 1 week before quit date
- Take 0.5mg for 3 days
- Increase to 0.5mg bid for 4 days
- 1mg bid for remainder of 12 weeks
- Write for a Starter pack(53), maintenance pack(56)
- Follow up call/message 1-2 weeks after starting

