Smoking Cessation Strategies: What Works?

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Smoking Morbidity and Mortality

- Smoking is a known cause of:
  - multiple cancers
  - heart disease
  - Stroke
  - COPD

- Smoking is (arguably) the most important modifiable risk factor for CVD

- Smoking causes 443,000 deaths in the US/year
  - 126,000 due to CVD
  - 50,000 more due to second-hand smoke exposure

CDC MMWR 2008; Fiore et al., 2008; Ezzati et al., 2004
Effects of Smoking Cessation

- Quitting Smoking:
  - before the age of 40 reduces smoking related mortality risk by 90%
  - before the age of 55 adds 6-10 years to lifespan
  - after a heart attack reduces 2 year mortality by 36%
  - after a lung cancer diagnosis greatly reduces recurrence and mortality

Critchley JA, Capewell 2003; Jha et al 2013; Wu et al 2011
Smoking Statistics

- National smoking rate 2012: 19.6%
  - RI 17.4%
  - MA 16.4%

- 69% want to stop smoking completely

- 52% attempted to quit in past year
  - 5% of attempts are successful
  - 68% attempted without any medication or counseling

CDC BRFSS 2012, CDC MMWR 2010, Rafful et al 2013
Smoking Cessation at Medical Visits: The 5As

- **Ask** about smoking status at **every** visit
- **Advise** to quit (clear, strong, personalized)

Fiore et al., 2008
Smoking Cessation at Medical Visits: The 5As

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Ask + Advise alone increase quit rates by 2.5%
Smoking Cessation at Medical Visits: The 5As

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- **Advise** to quit (clear, strong, personalized)
- **Assess** willingness to make a quit attempt
- **Assist** in development of a quit plan
- **Arrange** for follow-up (1 week is ideal)

Fiore et al., 2008
Smoking Cessation at Medical Visits: The 5As

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Depending on setting, these may be referred out

Fiore et al., 2008
First Line Treatments

- **Behavioral counseling**
  - Individual, group, Quit-lines

- **Nicotine Replacement Therapy (NRT)**
  - Nicotine Patch (OTC)
  - Nicotine Gum (OTC)
  - Nicotine Lozenge (OTC)
  - Nicotine Inhaler (Rx)
  - Nicotine Spray (Rx)

- **Pill Medication (start 1-2 weeks before cessation)**
  - Bupropion SR (Wellbutrin, Zyban)
  - Varenicline (Chantix)
    - Highest quit rates and most side effect concerns

Fiore et al., 2008
Combination Treatments Are Most Effective

- Any medication + counseling
- Nicotine patch + other NRT
- Any NRT + Bupropion

Fiore et al., 2008
Relapse...

- Even with the best treatments, 65% of your patients that attempt to quit will be smoking again in 6 months
Safety Concerns

NRT has very few safety concerns

- Contraindications: Pregnant/nursing, skin allergies (patch), severe reactive airway disease (nasal spray)
- Common side effects: “vivid dreams” (patch)
- Generally safe for CVD patients
  - “use with caution” within 2 weeks of MI and for those with serious arrhythmias or unstable angina

Fiore et al., 2008; Joseph 1996
Safety Concerns

Bupropion

- Contraindications: pregnancy, history of seizure or eating disorder, MAO inhibitor in past 14 days

- Common side effects: insomnia

- Generally well tolerated in CVD patients
  - Even post-MI patients

Fiore et al., 2008; Rigotti et al., 2006
Safety Concerns

Varenicline

- Contraindications: pregnancy
- Common side effects: Nausea, trouble sleeping, abnormal/strange dreams
- Black box warning for hostility & agitation, depressed mood and suicidal ideation/behavior
- Small increase in risk of cardiac events in both CVD and non-CVD samples

FDA 2011; Fiore et al., 2008; Singh et al 2011
Patients who are unmotivated to Quit: 5Rs

Discuss with patients:
- personal *Relevance* of smoking,
- *Risks* of smoking
- *Rewards* of quitting
- *Roadblocks* to quitting
  - for which the provider suggests possible solutions
- Repeat at subsequent visits

Fiore et al., 2008
Resources

- Clinical guidelines (includes dosing recommendations)
  - www.ahrq.gov/professionals/clinicians-providers/guidelines-recommendations/tobacco/clinicians/treating_tobacco_use08.pdf
Resources

- 1-800-QuitNow
- quitnowri.com (includes local resources)
- nicotine-anonymous.org
- BeTobaccoFree.gov
- Smokefree.gov (also in Spanish)