Smoking Cessation- Self Taught Topic

1. Know the health risks for using tobacco and benefits of quitting.
   * **Health Risks:**
     + Tobacco is the single greatest cause of disease and premature death in America today, and is responsible for more than 435,000 deaths annually.
     + Smoking is a major risk factor for cardiovascular disease.
     + Smoking contains polycyclic aromatic hydrocarbons (PAHs) which are potent inducers of several hepatic cytochrome P450 microsomal enzymes (CYP1A1, **CYP1A2**, and possibly CYP2E1).- cause drug interactions
     + Among current smokers, chronic bronchitis is the most common condition (49%), followed by emphysema (24%)- also lung cancer.
     + On average, cigarette smokers die approximately 10 years younger than do nonsmokers, and among those who continue smoking, at least half will die due to a tobacco-related disease.
   * **Benefits:**
     + Improvements in pulmonary function, circulation, and ambulation.
     + Decreased coughing, sinus congestion, fatigue, shortness of breath, and risk of pulmonary infection.
     + One year after cessation, the excess risk of coronary heart disease is reduced to half that of continuing smokers.
     + After 5 to 15 years, **the risk of stroke** is reduced to a rate similar to that of people who are lifetime nonsmokers.
     + 10 years after quitting, the chance of dying of lung cancer is approximately half that of continuing smokers.
2. Be able to apply the 5 As model for treating tobacco use and dependence.
   * **5As: Ask, Advise, Assess, Assist, and Arrange follow-up**
     + **Ask** about tobacco use: Identify and document tobacco use status of every patient at every visit
     + **Advise** to quit: In a clear, strong and personalized manner urge every tobacco user to quit
     + **Assess**: For current tobacco user, is the tobacco user willing to make a quit attempt at this time? For the ex-tobacco user, how recent did you quit and are there any challenges to remaining abstinent?
     + **Assist**: For the patient willing to make a quit attempt, offer medication and provide or refer for counseling or additional behavioral treatment to help the patient quit. For patients unwilling to quit at this time, provide motivational interventions designed to increase future attempts. For the recent quitter and any with remaining challenges, provide relapse prevention.
     + **Arrange**: All those receiving the previous As should receive follow-up.
   * **With a Patient not ready to quit**:

* **Do you ever plan to quit?**

Most patients will respond “yes,” in which case the clinician should continue with question 2. If they respond “no,” the clinician should strongly advise the patient to quit and offer to assist, if the patient changes his or her mind.

* **How would it benefit you to quit later, as opposed to now?**

Most patients will agree that there is never an ideal time to quit, and procrastinating a quit date has more negative effects than positive.

* **What is the worst thing that would happen if you were to quit now?**

This question probes patients' perceptions of quitting, which reveals some of the barriers to quitting that can then be addressed by the clinician.

1. To help a patient with a quit plan, review the “STAR” method.
   * **Relevance**—Encourage patients to think about the reasons why quitting is important. Counseling should be framed such that it relates to the patient's risk for disease or exacerbation of disease, family or social situations (e.g., having children with asthma), health concerns, age, or other patient factors, such as prior experience with quitting.
   * **Risks**—Ask patients to identify potential negative health consequences of smoking, such as acute risks (shortness of breath, asthma exacerbations, harm to pregnancy, infertility), long-term risks (cancer, cardiac, and pulmonary disease), and environmental risks (promoting smoking among children by being a negative role model; effects of second-hand smoke on others, including children and pets).
   * **Rewards**—Ask patients to identify potential benefits that they anticipate from quitting, such as improved health, enhanced physical performance, enhanced taste and smell, reduced expenditures for tobacco, less time wasted or work missed, reduced health risks to others (fetus, children, housemates), and reduced aging of the skin.
   * **Roadblocks**—Help patients identify barriers to quitting and assist in developing coping strategies (Table 85-6) for addressing each barrier. Common barriers include nicotine withdrawal symptoms (Table 85-7), fear of failure, a need for social support while quitting, depression, weight gain, and a sense of deprivation or loss.
   * **Repetition**—Continue to work with patients who are successful in their quit attempt. Discuss circumstances in which smoking occurred to identify the trigger(s) for relapse; this is part of the learning process and will be useful information for the next quit attempt. Repeat interventions when possible.
2. Explain the role of behavior counseling strategies and other support therapy for assisting patients with quitting.
   * Patients who receive a tobacco cessation intervention from a physician clinician or a non-physician clinician are more likely to quit.
3. Be able to select an appropriate product to be used for tobacco dependence treatment in a given patient considering efficacy, contraindications, side effects, and cost, convenience.
   * SEE CHART
4. Know what medications may be combined to increase efficacy.
   * Nicotine patch (>14 weeks) + NRT of gum or nasal spray
   * Nicotine patch + bupropion SR
   * Nicotine patch + nortriptyline
   * Nicotine patch + nicotine inhaler
5. Know what population requires special consideration when offering to use one or a combination of efficacious pharmacotherapies.
   * **Bupropion** is contraindicated in patients with anorexia or bulimia nervosa, patients undergoing abrupt discontinuation of alcohol or sedatives (including benzodiazepines), and patients currently taking monoamine oxidase inhibitors due to the increased potential for seizures in these populations.
   * Patients with serious psychiatric illness such as schizophrenia, bipolar disorder, and major depressive disorder did not participate in the premarketing studies of **varenicline**, and as such, the safety and efficacy of the medications in these populations have not been established.
   * **NRT** use in patients with cardiovascular disease has been the subject of numerous reviews, and it is widely believed by experts in the field that the risks of NRT in this patient population are small in relation to the risks of continued tobacco use.
   * The combination estrogen-progestin contraceptives should not be used in women who are older than 35 years of age and smoke. It is recommended that the use of progestin-only contraceptives (oral and injectable formulations) and intrauterine devices be placed in this population.
6. Know what population in whom medication has not been shown to be effective.
   * Medication therapy is not effective in specific populations for which there is insufficient evidence (i.e., **pregnant women, smokeless tobacco users, light smokers, adolescents**).
7. Recommend dose and duration of treatment for nicotine products, bupropion, and varenicline.
   * **Nicotine transdermal patch:** To start:>10 cigarettes/day is 21 mg/day × 4 weeks (generic) or × 6 weeks (Nicoderm CQ); 14 mg/day × 2 weeks; 7 mg/day × 2 weeks. To start: ≤10 cigarettes/day is14 mg/day × 6 weeks; 7 mg/day × 2 weeks. Remove at night if there are sleep disturbances. Duration is 8-12 weeks.
   * **Nicotine lozenge:** To start: First cigarette ≤30 minutes after waking is 4 mg and first cigarette >30 minutes after waking is 2 mg. Weeks 1–6: 1 lozenge Q 1–2 hr; Weeks 7–9: 1 lozenge Q 2–4 hr; Weeks 10–12: 1 lozenge Q 4–8 hr. With a maximum of 20 lozenges/day. Duration up to 12 weeks.
   * **Nicotine gum:** To start: ≥25 cigarettes/day is 4 mg and <25 cigarettes/day is 2 mg. Weeks 1–6: 1 piece Q 1–2 hr; Weeks 7–9: 1 piece Q 2–4 hr; Weeks 10–12: 1 piece Q 4–8 hr. With a maximum of 24 pieces/day. Use the “park” method. Duration up to 12 weeks.
   * **Nicotine nasal spray:** 1–2 doses/hr (8–40 doses/day). One dose = 2 sprays (one in each nostril); each spray delivers 0.5 mg of nicotine to the nasal mucosa. For best results, initially use at least 8 doses/day. The Maximum is 5 doses/hr. or 40 doses/day. Duration is 3-6 months.
   * **Nicotine Inhaler:** 6–16 cartridges/day. Individualize dosing; initially use 1 cartridge Q 1–2 hr. Best effects with continuous puffing for 20 minutes. Do not inhale. Open cartridge is good for 24 hours. Duration up to 6 months.
   * **Bupropion:** initiated while the patient is still smoking because approximately 1 week of treatment is necessary to achieve steady-state blood levels. Set a target quit date that falls within the first 2 weeks of treatment, generally in the second week. The starting dose of bupropion SR is one 150-mg tablet each morning for the first 3 days. If the initial dose is tolerated, the dosage should be increased on the fourth day to the recommended maximum dosage of 300 mg/day (150 mg BID). Therapy should be continued for 7 to 12 weeks after the quit date; however, some patients might benefit from extended treatment. For patients not able to tolerate the maximum daily dose, 150 mg/day is better tolerated and exhibits comparable long-term efficacy.
   * **Varenicline**: initiated 1 week before the patient stops smoking, then the recommended dose of varenicline is 1 mg BID (taken as one 1-mg tablet in the morning and one 1-mg tablet in the evening) following a 1-week titration: 0.5 mg daily days 1 to 3, 0.5 mg twice daily days 4 to 7, and 1 mg twice daily weeks 2 to 12. An additional course of 12 weeks may be appropriate to increase the likelihood of long-term abstinence.
8. Identify second line therapies and know the place in therapy for these agents.
   * Pharmacologic agents that have not received FDA approval for smoking cessation but are recommended as second-line agents include clonidine and nortriptyline.
   * **Clonidine**: The high incidence of side effects, including dry mouth, sedation, dizziness, and constipation, relegate clonidine as a second-line agent reserved for individuals who have failed or are intolerant of first-line agents.
   * **Nortriptyline (TCA)**: The side effects most commonly observed with nortriptyline include sedation, dry mouth, blurred vision, urinary retention, lightheadedness, and tremor. This drug should be used with caution in patients with underlying cardiovascular conditions because of the risk of arrhythmias and postural hypotension.
9. For patients with depression or weight gain concerns, discuss what medications may potentially appear to help.
   * **Weight Gain:**
     + Pharmacotherapy options that have been shown to delay weight gain include, the 4-mg nicotine gum or lozenge or bupropion SR.
   * **Depression:**
     + Bupropion SR may be particularly beneficial for use in patients with coexisting depression or in individuals with a history of depressive symptoms during a previous quit attempt.
10. For varenicline, review the most recent FDA warning regarding cardiovascular events.
    * The U.S. Food and Drug Administration (FDA) is notifying the public that the smoking cessation aid Chantix (varenicline) may be associated with a small, increased risk of certain cardiovascular adverse events in patients who have cardiovascular disease.
    * These included: angina pectoris, nonfatal myocardial infarction, need for coronary revascularization, and new diagnosis of peripheral vascular disease
    * Smoking is a major risk factor for cardiovascular disease, and Chantix can help you quit smoking.
    * The Chantix study wanted to include information about the efficacy and safety of the drug in two patient populations who may benefit greatly from giving up smoking—those with cardiovascular disease and those with chronic obstructive pulmonary disease (COPD).
    * **The updated label** states that patients should start taking Chantix seven days before their quit date or alternatively, begin Chantix dosing and then quit smoking between Days 8 and 35 of treatment.- There were no new safety concerns.