Nicotine Replacement Therapy (NRT)

- Two types
  - Long-acting: patch
  - Short-acting: gum, lozenge, inhaler, nasal spray
- Combination therapies are safe and effective
  - Patch provides steady state level of nicotine throughout day and night, short-acting supplement (gum, lozenge, nasal spray, inhaler) can be used prn for breakthrough cravings
  - Combination of long-acting and short-acting is associated with highest abstinence rates (OR 3.6)
  - Combination therapies recommended by Clinical Practice Guidelines but not FDA approved

Advantages

- Provides the addictive substance (nicotine) without other toxic and carcinogenic agents
- Does not introduce a new drug
- Allows flexible dosing and gradual reduction
- Three forms available OTC and generic (patch, gum, lozenge)
- Attenuates weight gain during treatment
- Much lower addiction potential than cigarettes
- Minimal side effects – ensure proper usage

Watch out for:

- Many patients do not use enough NRT or stop too soon; use up to 6 months
- Do not switch to lower dose until patient can go 2 weeks smoke-free, without any slips or near misses
- Some forms of short-acting NRT may not work for certain patients (e.g., edentulous pts cannot chew gum)
- Heart Concerns: There is no association between NRT and acute cardiovascular events; however, use with caution in patients ≤ 2 weeks s/p MI, with serious underlying arrhythmia, serious or worsening angina pectoris

### Bupropion SR (Wellbutrin, Zyban)

- Monocyclic antidepressant, inhibits reuptake of norepinephrine and dopamine
- Dosing
  - 150 mg po q AM x 3 days, increase to 150 mg po bid on 4th day and maintain 3-6 months
- Advantages
  - Available generic
  - Can be combined with NRT
  - Good choice for mildly depressed patients
  - Attenuates weight gain during treatment
- Watch out for:
  - Precautions: Severe hepatic cirrhosis; Seizure disorder; Medications or conditions that lower seizure threshold; Eating disorder; MAO inhibitor therapy within 14 days; Abrupt discontinuation of alcohol or sedatives; Excessive alcohol use
  - Note US Boxed Warning contained in product information, discussed on reverse side of this sheet
  - Common side effects include: dry mouth, headache, insomnia, nausea, weight loss
    - Ensure at least 8 hrs between doses, take pm dose as early as possible to avoid insomnia
  - Discontinue and contact health care provider for allergic or skin reactions including swelling, rash, redness, or peeling of the skin
Varenicline (Chantix)

- Alpha4Beta2 nicotinic acetylcholine receptor partial agonist
  - Two mechanisms of action
    - Antagonist – blocks nicotine from binding to receptors so that smoking is less pleasurable
    - Agonist – causes release of dopamine to ease cravings and withdrawal symptoms
- Dosing (First month supply comes in “Chantix starter pack”)
  - 0.5 mg po qd days 1-3, increase to 0.5 mg po bid days 4-7, increase to 1 mg po bid and maintain
  - Take for minimum of 3 months, higher abstinence rates for some patients if maintained for 6 months
- Advantages
  - Highest abstinence rates of any monotherapy (OR 3.1)
  - May be a good choice for patients who struggle with alcoholism (Chantix may reduce alcohol use)
- Watch out for:
  - History of psychiatric illness, suicidal ideation/attempt, self-harm behaviors (See US Boxed Warning)
  - Severe renal impairment (may require dose adjustment)
  - Common side effects include: nausea, insomnia, headache, abnormal dreams
    - Always take with food and water to avoid nausea; if nausea persists, consider dose reduction
    - Ensure at least 8 hrs between doses, take pm dose as early as possible to avoid insomnia
  - Small increased risk of certain adverse cardiovascular events in patients with cardiovascular disease
  - Discontinue and contact health care provider for allergic or skin reactions including swelling, rash, redness, or peeling of the skin

Summary of US Boxed Warning for Bupropion and Chantix (see product information for complete text):

- Serious neuropsychiatric events (including depression, suicidal thoughts, and suicide) have been reported with use
- Clinician Recommendations
  - Ask about history of psychiatric illness before prescribing
  - Weigh risks and benefits
  - Monitor all patients for behavioral changes and psychiatric symptoms
  - Inform patients to discontinue treatment and contact their healthcare provider immediately if they experience agitation, hostility, depressed mood, changes in behavior or thinking that are not typical, suicidal ideation or suicidal behavior

References:


Additional Resources:

