Treatment Options for Nicotine Dependence

Nicotine Replacement Therapy

- **Nicotine gum**: OTIC

  **Dosage Range**: Available in 4 mg and 2 mg

  **Duration of Treatment**: Use gum for 1-2 weeks, then switch to sustained-release nicotine lozenge or patch

  **Advantages**:
  - No purchase required
  - No food or drink restrictions
  - Can be used with medications

  **Disadvantages**:
  - Requires frequent dosing
  - May affect taste and smell

- **Nicotine nasal spray**: Prescription only

  **Effects**:
  - Rapid nicotine delivery

  **Indication**:
  - For smoking cessation

  **Dosage**:
  - One 5 mg spray (0.3 mL) in each nostril

  **Duration of Treatment**:
  - 17 days

  **Advantages**:
  - Rapid nicotine delivery
  - No food or drink restrictions

  **Disadvantages**:
  - Requires frequent dosing
  - Can cause sleep problems

- **Nicotine patch**: Prescription only

  **Dosing Range**: Available in 15 mg, 21 mg, 25 mg, and 35 mg

  **Duration of Treatment**:
  - Typically 6 weeks

  **Advantages**:
  - Flexible dosing
  - Lower risk of dependence than with nicotine gum

  **Disadvantages**:
  - Requires frequent dosing
  - Can cause sleep problems if worn at night

- **Nicotine nasal inhaler**: Prescription only

  **Dosage**:
  - One inhalation from each of the two applicators

  **Duration of Treatment**:
  - Typically 6 weeks

  **Advantages**:
  - No purchase required
  - No food or drink restrictions

  **Disadvantages**:
  - Requires frequent dosing
  - High risk of dependence

- **Nicotine lozenge**: Prescription only

  **Dosage**:
  - Typically 6 weeks

  **Duration of Treatment**:
  - Typically 6 weeks

  **Advantages**:
  - No purchase required
  - No food or drink restrictions

  **Disadvantages**:
  - Requires frequent dosing
  - Can cause sleep problems

- **Bupropion**: Prescription only

  **Dosage**:
  - Smoking cessation: 150 mg twice daily
  - Maintenance: 150 mg once daily

  **Duration of Treatment**:
  - Smoking cessation: 6–16 cartridges per day
  - Maintenance: 9–12 pieces per day

  **Advantages**:
  - No purchase required
  - No food or drink restrictions

  **Disadvantages**:
  - Requires frequent dosing
  - May affect taste and smell

- **Varenicline**: Prescription only

  **Dosage**:
  - Smoking cessation: 1 mg twice daily
  - Maintenance: 0.5 mg twice daily

  **Duration of Treatment**:
  - Smoking cessation: 6–16 cartridges per day
  - Maintenance: 9–12 pieces per day

  **Advantages**:
  - No purchase required
  - No food or drink restrictions

  **Disadvantages**:
  - Requires frequent dosing
  - May affect taste and smell

- **Motivational Enhancement Therapy (Adjunct)**

  **Cognitive Behavioral Therapy (Adjunct)**

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**General Considerations**

- **Motivational interviewing** is a patient-focused counseling with the aim of enhancing one’s motivation to change by helping participants identify their reasons for change (2001 NEI Global Psychopharmacology Congress).

- **Cognitive behavior therapy** (CBT) is based on the premise that our behaviors are learned from our thoughts and beliefs, and therefore must be targeted to modify these behaviors and thoughts. Cognitive behavioral therapy incorporates exposure, thought-stopping, and coping strategies to control the thoughts, beliefs, and behaviors of patients with nicotine addiction.

**References**


- Varenicline is an α-4β-2 nicotinic receptor partial agonist. Like other smoking cessation options, varenicline has the potential to reduce withdrawal symptoms in the absence of smoking by providing partial nicotine replacement. Nicotine withdrawal symptoms include irritability, anger, anxiety, irritability, and sleep problems. Varenicline provides a "partial agonist" effect on the nAChR (nicotinic acetylcholine receptor).

- If nicotine measurement is done during smoking, varenicline has the potential to reduce withdrawal symptoms in the absence of smoking by providing partial nicotine replacement. Nicotine withdrawal symptoms include irritability, anger, anxiety, irritability, and sleep problems. Varenicline provides a "partial agonist" effect on the nAChR (nicotinic acetylcholine receptor).