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# **Core Competences – Answer Key: Diagnosis & Treatment of Tobacco Dependence**

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## **A. Taking a Basic Tobacco-Use History**

1. What are at least 5, fundamental, tobacco-use history questions to ask each tobacco-dependent patient currently using tobacco? (**Five answers provided; there are more.**)  
**a) Tobacco-Use History** – Age started daily cigarette use (younger than age 17?); Age began experimenting with cigarettes; Pack-years of exposure; **b) Severity of Nicotine Dependence** – Compute FTND score; Current & past nicotine withdrawal symptom (NWS) severity; **“Quick Bedside Guide”**: Time to 1<sup>st</sup> cig in AM & Number of cigarettes smoked/day (2 items from Fagerström Test for Nicotine Dependence [FTND]); **c) Quitting History** – # of previous quit attempts; Most recent quit attempt; Longest period of non-smoking and when that was; What treatment, including medications, used with each (include what worked and what did not, including AEs); **d) Psychiatric Co-morbidity** – Major Depressive Disorder, Anxiety State, Post-Traumatic Stress Disorder; **e) Stage-Of-Change** – Determine what stage the patient appears to be in: *Precontemplation, Contemplation, Preparation, or Action.*
2. What are 2 assessments that enable the treating physician to **best anticipate** the intensity and duration that the individual patient’s tobacco-dependence management plan **must have** in order to be effective (i.e., risk stratify) or to alert the treating physician that this patient should be referred to a tobacco-dependence treatment specialist? (**Four answers provided; there are more.**)  
**a) Fagerström Test for Nicotine Dependence (FTND) score; b) Severity of nicotine withdrawal symptoms (NWS) with prior quit attempts; c) Reason(s) for relapse with prior quit attempts; d) Current or past history of psychiatric co-morbidity, including major depressive disorder (MDD) or post-traumatic stress disorder (PTSD)**
3. Nicotine Withdrawal Symptoms occur as a result of?  
Drop in dopamine (pleasure-reward center), norepinephrine (concentration skills), and other neuropeptide levels in the brain. This drop produces a desire or craving to smoke a cigarette

## **B. Assessing the Severity of Tobacco-Dependence**

1. What does the Fagerström Test for Nicotine Dependence (FTND) score tell you?  
Severity of nicotine dependence
2. How can you use change in your patient’s Nicotine Withdrawal Symptom (NWS) scores, after Target Stop Date, to improve your treatment plan?  
NWS reflects altered brain chemistry. A high NWS score post-Target Stop Date (TSD) means relapse-risk is high; therefore, medications, medication dose(s), or medication combinations must be changed to suppress NWS as completely as possible. In contrast, a low NWS score after TSD means treatment plan is adequate and effective. After NWS score  $\leq 8/42$  points for  $\geq 1$  month, consider reducing medication dose(s) – 1 medication at a time. **ALWAYS regularly measure NWS score after medication reduction to make certain nicotine withdrawal symptoms (NWS) continue to be suppressed.**

## **C. Tobacco-Dependence Treatment: Behavioral Management Principles**

1. List 4 common barriers to stopping smoking. (**NB**: The presence of any one such barrier should also alert you that your patient will need a more intensive and longer-duration medical treatment plan, including pharmacotherapy, or that you should consider referral to a tobacco-dependence treatment specialist.) (**Eight answers provided; there are more.**)  
**a) Fear, in general; b) Fear of stopping tobacco use, including the anticipation of experiencing painful Nicotine Withdrawal Symptoms (NWS); c) Having experienced the pain of NWS before; d) Low education level; e) Low**

household income; f) Lack of support from family/friends; g) No access to healthcare/medications/effective tobacco-dependence treatment; h) Psychiatric co-morbidity, e.g., major depressive disorder or post-traumatic stress disorder

2. What are at least 4 critically important components of initial behavioral management? (*Six answers provided; there are more.*)  
a) Understand & “buy into” the neurobiology of nicotine addiction (physician & patient); b) Understand and accept that tobacco dependence is a chronic medical disease, not a “habit”; c) Understand & accept the critical importance of using pharmacotherapy for as long as necessary – months, years, to life-time – (physician & patient) to suppress Nicotine Withdrawal Symptoms from Target Stop Date (TSD) and to keep them suppressed for the rest of the patient’s life; d-1) Have the patient set an appropriate TSD; d-2) For women: Have her set a TSD in the follicular phase of her menstrual cycle; e) Have the patient identify all triggers for having a cigarette, particularly intermittent, irregularly occurring, or infrequent triggers; f) Have the patient develop pro-active strategies – Action Plans – for effectively dealing with each and every trigger-setting
3. What are the 3 commonest causes of relapse?  
a) Inadequate pharmacotherapy, making the patient more vulnerable to relapse; b) Stressful situations; or c) Celebratory settings, particularly involving alcohol use
4. What are the 2 most effective behavioral – *not* psychological – techniques to prevent relapse?  
a) Think something different and do something different; b) Remember to use pharmacotherapy, including rescue medications

#### **D. Tobacco-Dependence Treatment: Medical Management Principles**

1. What is the fundamental, primary medical objective and rationale for prescribing any medication when treating tobacco dependence? (Hint: Stopping smoking is *not* a correct answer.)  
Suppress **completely** all nicotine withdrawal symptoms from Target Stop Date, for the rest of the patient’s life
2. What **benefits** do Nicotine Medications, Bupropion, & Varenicline have?  
a) Nicotine Medications: Available as a patch, gum, lozenge, nasal spray, and oral inhaler; provide nicotine to the brain; work immediately at CNS level; reduce NWS severity; blunt weight gain; b) Bupropion: Oral medication; dopamine/noradrenergic re-uptake inhibitor; takes ~7 days to reach steady state; reduces NWS; blunts weight gain; stabilizes mood; (NB: *MUST* be started 1-4 weeks pre-TSD); c) Varenicline: Oral medication;  $\alpha_4\beta_2$  partial agonist – developed *specifically* to treat tobacco dependence – that both stimulates CNS dopamine release and blocks CNS nicotine binding; takes ~7 days to reach steady state; reduces NWS; does *not* blunt post-quit weight gain
3. List at least 4 psychiatric co-morbid conditions that indicate your patient most likely will need to be prescribed tobacco-dependence medications in higher-than-standard doses, in medication-combinations, and for an indefinite time in order to have an adequate treatment plan for tobacco dependence or should be referred to a tobacco-dependence treatment specialist:  
a) Affective disorders (depression/anxiety/bipolar); b) Post-Traumatic Stress Disorder (PTSD); c) Chemical Addictions; d) Psychosis; e) Eating Disorders, eg, bulimia or anorexia; f) Attention-Deficit Hyperactivity Disorder
4. Describe 3 sex-based differences that affect tobacco-dependence treatment effectiveness:  
a) If a woman is pregnant, or planning pregnancy, consider FDA-Pregnancy Safety Category. Bupropion and varenicline are Category C, nicotine medications Category D; b) Women are twice as likely to have a lifetime major depressive disorder and therefore unknowingly self-medicating with nicotine from cigarettes; c) Women do not respond as well as men to “standard” doses of bupropion or nicotine medications.

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Date: \_\_\_\_\_