



<http://etc.ch/WLYM>

Project ECHO
First Line Smoking Cessation
Pharmacotherapies:
Recognizing and Managing
Side Effects

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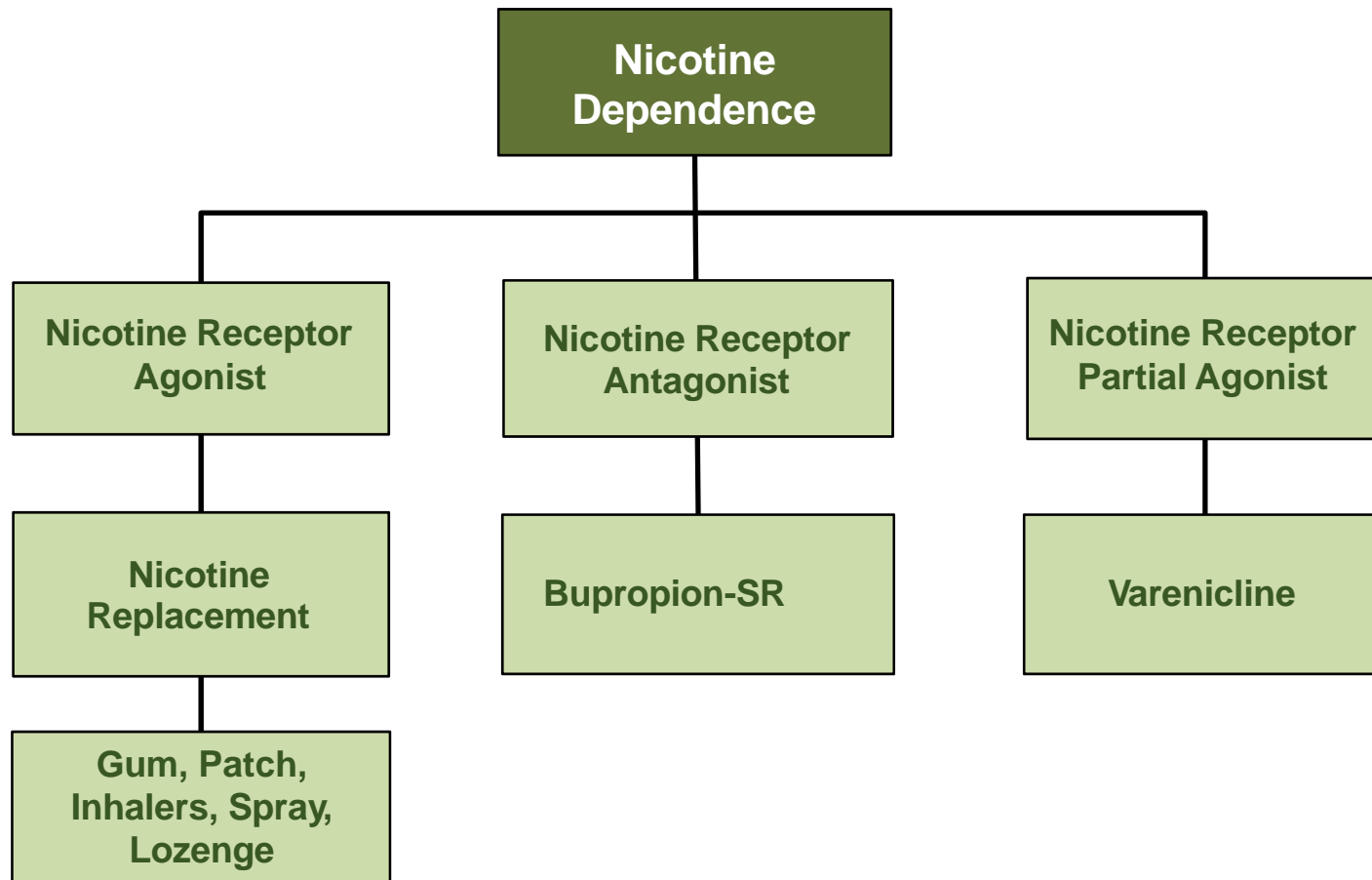
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Objectives

- To be familiar with the basic pharmacologic effects of nicotine and the symptoms associated with nicotine withdrawal syndrome.
- To have an awareness of the common side effects of each of the three general categories comprising the 1st line smoking cessation medications, i.e. NRT's, Bupropion and Varenicline
- To be able to provide patient education about smoking cessation pharmacotherapies and provide useful information and direction to patients reporting side effects

Medications for Nicotine Dependence (FDA Approved as of 2011) “FIRST LINE MEDICATIONS”



Nicotine Effects

Receptor Activation

- Increase arousal
- Heighten attention
- Influence stages of sleep
- Produce states of pleasure
- Decrease fatigue
- Decrease anxiety
- Reduce pain
- Improve cognitive function

Withdrawal Symptoms

- Mentally sluggish
- Inattentive
- Insomnia
- Boredom and dysphoria
- Fatigue
- Anxiety
- Increase pain sensitivity
- Decrease cognitive function

Most withdrawal symptoms peak 24–48 hr after quitting and subside within 2–4 weeks





CN1CCCC1c2cccnc2 **NICOTINE REPLACEMENT THERAPY**



NRT Formulations

3 OTC & 2 Prescription Types

- **Gum** (2, 4 mg; Nicorette^R)--available OTC
- **Lozenge (Regular & Mini)**
- **Patch** (up to 21 mg; e.g. Nicoderm^R)
--available OTC
- **Nasal Spray** Rx
- **Nicotine “Inhaler”** Rx









Orally administered NRT's are associated with :

- mouth and throat soreness
- mouth ulcers
- hiccups
- coughing



Nicotine Patch



ADVANTAGES

- Provides consistent nicotine levels
- Easy to use and conceal
- Fewer compliance issues
- Safe in presence of C-V disease

DISADVANTAGES

- Clients cannot titrate the dose
- Allergic reactions to adhesive may occur
- Taking patch off to sleep may lead to nicotine cravings in the morning



Transdermal Nicotine Patches

- Various Brands available as 24 hr and 16 hr patches
- One of the most popular forms of NRT
- Most often associated with **skin irritation**
- Nico-Derm CQ Nicotine Patch
- (transparent, clear see through patch)
- Latex Free



Nicotine Patches Side Effects

- **Patient complains of Vivid dreams, Insomnia or other sleeping problems** – How do you manage this side effect?
- **Patient complains of Heart palpitations** – How do you manage this side effect?
- **Patient complains of Chest Pain** – How do you manage this side effect?
- **GI complaints – nicotine has stimulant effect on bowels** – quitting smoking may cause constipation and too much nicotine may contribute to overactive bowels.
- **Anxiety “feeling jittery”** – possibly nicotine excess dosing

NRT's are currently recommended as a safe intervention to the general population and higher-risk groups, **including pregnant and breastfeeding women, adolescents, and smokers with cardiovascular disease.**

Pregnant smokers – should attempt medication free smoking cessation first. NRT's should not be used unless patient has attempted and failed at a medication free smoking cessation attempt.

Cardiovascular diseases–

NRT's are not a risk factor for acute myocardial events. NRT's should be used with caution among particular cardiovascular patient groups: those in the immediate (within 2 weeks) post-myocardial infarction period, those with serious arrhythmias or unstable angina pectoris.

Safety Warning Label for Smoking while wearing Nicotine Patch

Current Drug Facts Labeling	Proposed Drug Facts Labeling
Warnings:	
Do not use <ul style="list-style-type: none">• if you continue to smoke, chew tobacco, use snuff, or use [a different NRT product] or other nicotine containing products	None. The "Do not use" statement would be deleted.
Directions:	
<ul style="list-style-type: none">• stop smoking completely when you begin using [the NRT product]• it is important to complete treatment. Stop using [the NRT product] at the end of [a specified number of] weeks. If you still feel the need to use [the NRT product], talk to your doctor	<ul style="list-style-type: none">• begin using [the NRT product] on your quit day• it is important to complete treatment. If you feel you need to use [the NRT product] for a longer period to keep from smoking, talk to your health care provider

Localized skin reaction

What would you do for a patient presenting in your office with this problem shortly after starting on the patch?



This may be an **allergic reaction or a contact dermatitis** (irritation from any component of the patch or the occlusive effects of the patch, particularly in warmer temperatures)

Determine if patient has a known **latex allergy** or hx of rashes with dressings or Band-Aids. If so, then switch to **Nico-Derm CQ patches** which are Latex Free (transparent, clear, see-through patches).

Patients may **rotate the patch at various sites** to avoid skin irritation, if that is an issue. May apply patch anywhere **below the collar, above the elbows and above the belt**



Inhaler



How does the NICOTROL Inhaler work?

A nicotine vapor cartridge is pierced when put into the inhaler.



One cartridge lasts about 20 minutes with continuous puffing.

- Each cartridge delivers 4 mg of nicotine but only 2 mg is actually absorbed.¹

Nasal Spray



Nicotine Poisoning



"DAISIES WON'T TELL"

OF COURSE daisies or any other flower can't tell you that "Black Leaf 40" means protection against the insect pests that damage and destroy. Experienced gardeners everywhere will tell you, however, that "Black Leaf 40" does

GUARD THE GARDEN

"Black Leaf 40" has a double killing action—by contact and also by fumes. It acts quickly. Economical, a little makes a lot of spray.

HAS MANY USES: Sprayed on shrubs and evergreens, "Black Leaf 40" keeps dogs away. Kills insects on vegetables and fruit. In the poultry house it kills lice and feather mites.

Insist on original, factory-sealed packages, for full strength. Sold by dealers everywhere.

TOBACCO BY-PRODUCTS & CHEMICAL CORP.
INCORPORATED
LOUISVILLE, KENTUCKY

3608

Varenicline



ADVANTAGES

- Oral formulation with twice-a-day dosing
- Offers a new mechanism of action for persons who previously failed using other medications
- Early trials suggest this agent is superior to bupropion SR

NOTE: *Patients have reported changes in behavior, agitation, depressed mood, suicidal thoughts or actions while taking or after stopping Varenicline.*

DISADVANTAGES

- Common side effects:
 - Nausea (in up to 33% of clients)
 - Sleep disturbances (insomnia, abnormal dreams)
 - Constipation
 - Flatulence
 - Vomiting



Varenicline

CHANTIX 0.5 MG TABLET



Identification

This medicine is a white, oblong, film-coated tablet imprinted with "Pfizer" and "CHX 0.5".

Varenicline

CHANTIX 1 MG TABLET



Identification

This medicine is a light blue, oblong, film-coated tablet imprinted with "Pfizer" and "CHX 1.0".

Bupropion SR Tablets

- Does not contain nicotine
- Tablet that is swallowed whole, and the medication is released over time
- Same medication as Wellbutrin, which is used to treat depression
- Sold with a prescription



Courtesy of the University of California, San Francisco



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Rare Side effects not specific to the First Line Smoking Cessation medications

- Be aware of rare severe side effects which CAN occur with these and any medications.
- Local and systemic allergic reactions: can vary in presentation and severity and can progress very rapidly from onset of initial symptoms.
- Be alert to observable signs and reported symptoms.

ALLERGIC REACTIONS



SEND TO THE EMERGENCY ROOM !!

Life Threatening Potential

Could result from ANY medication and all agents we will discuss today



- Rash
- Hives
- Itching
- Nausea
- Difficulty breathing
- Tightness in the chest
- Blurred vision
- Swelling of the mouth Face, lips, or tongue
- Fast or irregular heartbeat
- Severe or persistent dizziness or headache
- Swelling or persistent redness at the application site; vomiting; weakness.



Thank You!

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Question 1

<http://directpoll.com/r?XDbzPBdJ2bAX0ZEW1JfHloKkXzU9mLnIr3qlg6XFf7>

Question 2

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Question 9

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Question 10

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