

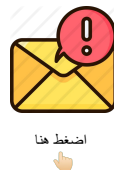
Tobacco and vaping use

Objectives

- Tobacco use Disorder
- Epidemiology of smoking in Saudi Arabia.
- Risks of smoking (Morbidity and Mortality).
- How are you going to help the smoker to quit and how to overcome withdrawal symptoms.
- Cognitive and behavioral treatment strategies
- Update in pharmacological management, smoking cessation medication.

Color index:

- Main text
- Males slides
- Females slides
- Doctors notes 442
- Doctor notes
- Golden notes
- Important
- Extra



Tobacco Use And Cessation

Types of Tobacco

Types of Tobacco Products

Smoking Tobacco

Tobacco smoking is the act of **burning** dried leaves of the tobacco plant and inhaling the smoke.

MANUFACTURED CIGARETTES

Manufactured cigarettes are the most commonly consumed tobacco products worldwide. They consist of shredded or reconstituted tobacco, processed with hundreds of chemicals and rolled into a paper-wrapped cylinder. Usually tipped with a cellulose acetate filter, they are lit at one end and inhaled through the other.

Most Prevalent: *Worldwide*
Most of these chemicals added substances are carcinogenic

ROLL-YOUR-OWN

Roll-your-own (RYO) cigarettes are cigarettes hand-filled by the smoker from fine-cut, loose tobacco rolled in a cigarette paper. RYO cigarette smokers are exposed to high concentrations of tobacco particulates, tar, nicotine, and tobacco-specific nitrosamines (TSNAs), and are at increased risk for developing cancers of the mouth, pharynx, larynx, lung, and esophagus.

Most Prevalent: *Europe and New Zealand*

CIGARS

Cigars are made of air-cured and fermented tobaccos with a tobacco-leaf wrapper. The long aging and fermentation process produces high concentrations of carcinogenic compounds that are released on combustion. The concentrations of toxins and irritants in cigars are higher than in cigarettes. Cigars come in many shapes and sizes, from cigarette-sized cigarillos to double coronas, cheroots, stumpe, chuttas, and dhumtis. In reverse chutta and dhumti smoking, the ignited end of the cigar is placed inside the mouth.

Most Prevalent: *Worldwide*

1 cigarette is equal to 10 cigarettes and this is so important to consider because when the patient said he takes 1 per day mean = 10 or even 20 , which mean risk of cancers and chronic disease 10 times higher in compared with (manufactured cigarettes)

BIDIS

Bidis consist of a small amount of sun-dried, flaked tobacco hand-wrapped in dried temburni or tendu leaf (*Diospyros sp.*) and tied with string. Despite their small size, bidis deliver more tar and carbon monoxide than manufactured cigarettes because users are forced to puff harder to keep bidis lit. Bidis are found throughout South Asia and are the most heavily consumed smoked tobacco products in India.

Most Prevalent: *South Asia*

PIPES

Pipes are made of briar, slate, clay, or other substances. Tobacco is placed in the bowl, and the smoke is inhaled through the stem. In Southeast Asia, clay pipes known as sulpa, chillum, and hookli are widely used.

Most Prevalent: *Worldwide*

KRETEKS

Kreteks are clove-flavored cigarettes widely smoked in Indonesia. They may contain a wide range of exotic flavorings and eugenol, which has an anesthetic effect, allowing for deeper and more harmful smoke inhalation.

Most Prevalent: *Indonesia*

WATER PIPES

Water pipes, also known as shisha, hookah, narghile, or hubble-bubble, operate by water filtration and indirect heat. Flavored tobacco is burned in a smoking bowl covered with foil and coal. The smoke is cooled by filtration through a basin of water and consumed through a hose and mouthpiece.

Most Prevalent: *North Africa, the Mediterranean region, and parts of Asia.*

Same effect as Cigar, also more risk for cancer and chronic disease

Smokeless Tobacco "الشمة"

Smokeless tobacco is usually consumed orally or nasally, **without burning**.

More risk for oral cancer and nasopharyngeal cancer in compared with other inhaled substances.

يودره تؤخذ عن طريق الفم او الاستنشاق من انف

CHEWING TOBACCO

Oral smokeless tobacco products are placed in the mouth, cheek, or inner lip and sucked (dipped) or chewed. Tobacco pastes or powders are similarly used, placed on the gums or teeth. Sometimes referred to as "spit tobacco" because users spit out the built-up tobacco juices and saliva, this mode of tobacco consumption became associated with American baseball players during the twentieth century. The tobacco industry exploited these sports heroes to market their tobacco products to youth. Smokeless tobacco causes cancer in humans and leads to nicotine addiction similar to that produced by cigarette smoking.



There are many varieties of smokeless tobacco, including plug, loose-leaf, chimo, toombak, gutkha, and twist. Pan masala or betel quid consists of tobacco, areca nuts (*Areca catechu*), slaked lime (calcium hydroxide), sweeteners, and flavoring agents wrapped in a betel leaf (*Piper betel*). There are endless varieties of pan masala, including kaddipudi, hogesoppu, gundi, kadapam, zarda, pattiwala, kiwam, and mishri.

Most Prevalent: *India*

MOIST SNUFF



Moist snuff is a small amount of ground tobacco held in the mouth between the cheek and gum. Manufacturers are increasingly prepackaging moist snuff into small paper or cloth packets to make the product more convenient. Other moist snuff products are known as khaini, snus, shammaah, nass, or naswa.

Most Prevalent: *Worldwide*

DRY SNUFF

Dry snuff is powdered tobacco that is inhaled through the nose and absorbed through the nasal mucosa or taken orally. Once widespread, particularly in Europe, the use of dry snuff is in decline.

Most Prevalent: *Europe*



-Just i want you to know it because when you take history from individual , you need to ask him which type of smoking that he use ,but no questions in the exam from these details.

Types of Tobacco

Electronic Cigarette

- An **electronic cigarette** or **electronic Nicotine delivery system (ENDS)** is a battery-powered vaporizer which has a similar feel to tobacco smoking.
- Electronic cigarettes do not contain tobacco, although they do use nicotine from tobacco plants. They do not produce cigarette smoke but rather an aerosol, which is frequently but inaccurately referred to as vapor.
- includes **nicotine** so risk for **addiction** still there!! And its new in the markets so what are types of **chemicals they used still UNKNOWN (flavors)**, even though Before a few years they consider Vaping as a helpful way to quit smoking but this is not true and not consider in general any more ,because recent studies show that it cause **endothelial lunge damage** destruction to the alveolar wall which decreased the surface area of the lung in addition to that the long term effect of electronic smoking is not well known until now. **no ar stain of lips as conventional cigarette** so it still not considered safer than conventional cigarette

Water-Pipe: Sheesha

- Not safer than regular tobacco smoke.
- Causes the same diseases but more **Polycythemia** (RBCs and Hemoglobin).
- Raises the risk of **lip cancer** higher compared to other tobacco, spreading infections like **Tuberculosis**.
- Users ingest about **100 times** more lead from hookah smoke than from a cigarette.

Content of Cigarette

All tobacco use can be considered problematic since there is no safe level of use

- Tobacco smoke is made up of thousands of chemicals, including at least 70 known to cause cancer.
- These cancer-causing chemicals are referred to as **carcinogens**.
- **Some of the chemicals found in tobacco smoke include:**

- Nicotine (the addictive drug that produces the effects in the brain that people are looking for).
- Hydrogen cyanide.
- Formaldehyde.
- Lead.
- Arsenic.
- Ammonia.
- Radioactive elements, such as polonium-210.
- Benzene.
- Carbon monoxide.
- Tobacco-specific nitrosamines (TSNAs).
- **Polycyclic aromatic hydrocarbons (PAHs). It is the most carcinogenic one.**



The World Health Organization describes smoking as: an **Epidemic** that causes nearly 6 million deaths per year and will lead to 8 million deaths annually by 2030 if current trends continue.

Smoking in the Kingdom of Saudi Arabia: (Findings from the Saudi Health Interview Survey)

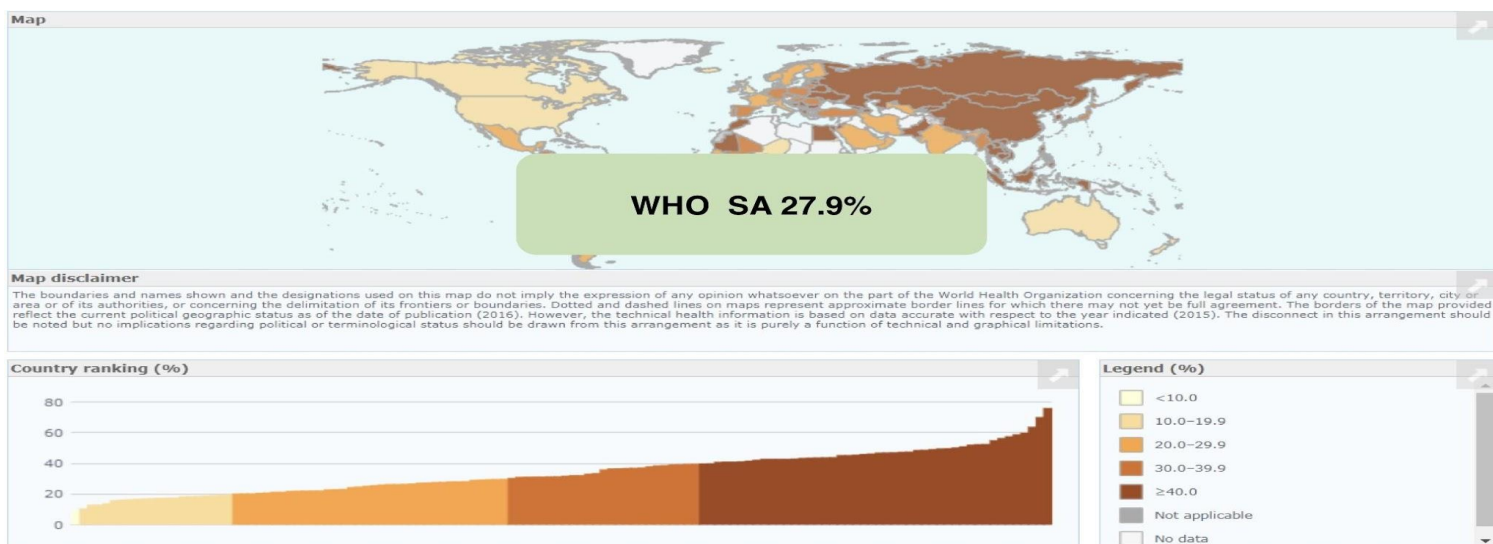
Findings are representative of the Saudi population aged 15 years and older.

- Overall, **12.1%** of Saudis reported that they currently smoke tobacco.
- This prevalence was **23.7%** among males and **1.5%** among females.
- The prevalence of tobacco smoking varied by age;
 - Saudis aged 55 to 64 years had the highest prevalence of current smoking (15.6%) with 24.7% among males and 4.2% among females.

Studies have shown different prevalence of tobacco smoking in general population.

- The highest prevalence of cigarette smoking was found **34.4%** and the lowest was discovered **12.2%**.
- **Male** smoker's prevalence was generally more than female in the studies Men had high smoking prevalence rate at younger age than women while women in older age had high prevalence in smoking than men.
- It was found that tobacco smoking prevalence among **Northern Saudi** civilians was relatively high

Prevalence of Tobacco smoking among persons aged 15 years and above % (Male) – 2015



Risks of Smoking

(Morbidity and Mortality)

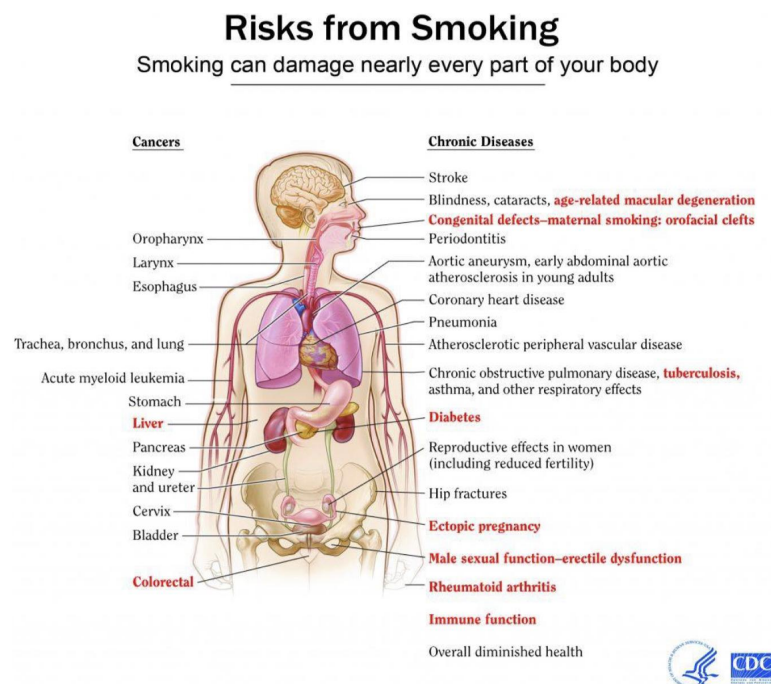
- Cigarette smoking causes more than 480,000 deaths each year in the United States.
- This is about one in five deaths.
- **Smoking causes more deaths each year than all of these combined:**
 - Human immunodeficiency virus (HIV).
 - Illegal drug use.
 - Alcohol use.
 - Motor vehicle injuries.
 - Firearm-related incidents.
- Tobacco is responsible for about **30% of all cancer deaths** in developed countries.
- More people die from tobacco related diseases other than cancer such as **stroke, myocardial infarction, aortic aneurysm and peptic ulcer.**
- There is evidence that the earlier a person begins to smoke, the greater is the risk of life-threatening diseases such as chronic bronchitis, emphysema.

Women who smoke run even more risks than men:

- The adverse effects of oral contraceptive use are markedly increased in women smokers.
- Osteoporosis
- Impaired fertility *male and female*
- Spontaneous miscarriages.

In pregnancy, smoking contributes to:

- Perinatal complications such as bleeding
- Intrauterine growth retardation
- Low-birth-weight babies
- Affecting the child's growth and development.

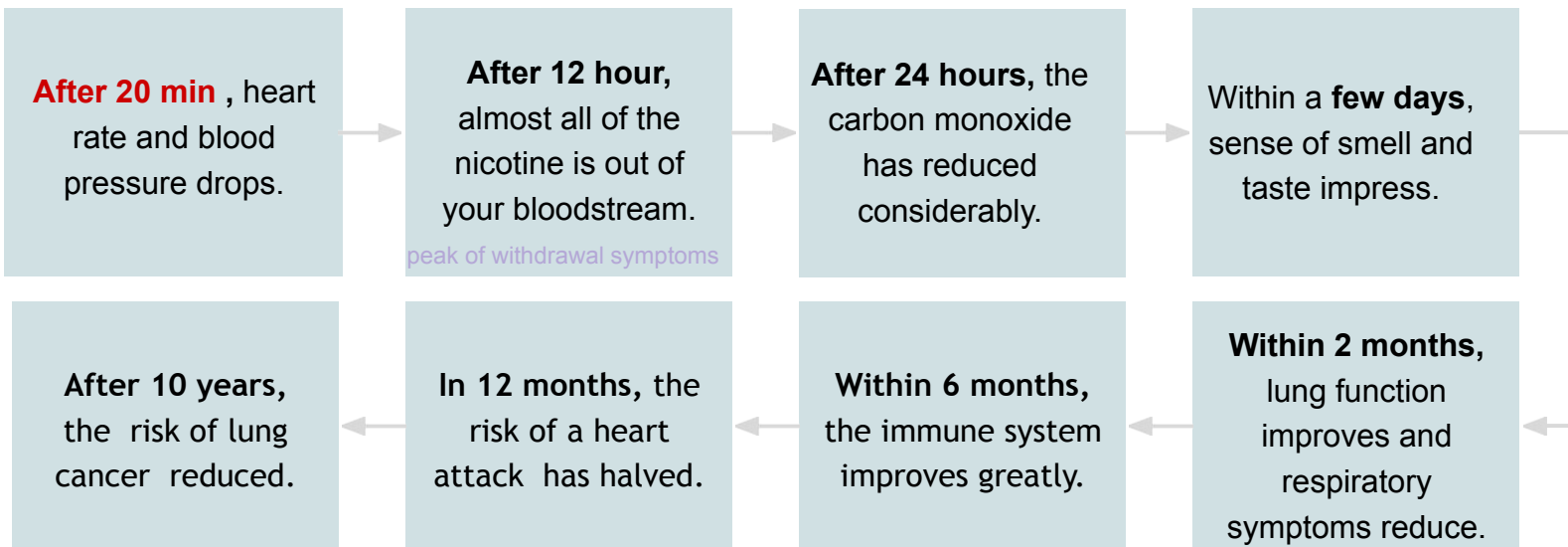


How are you going to help the smoker to Quit?

Why Quit Smoking NOW?

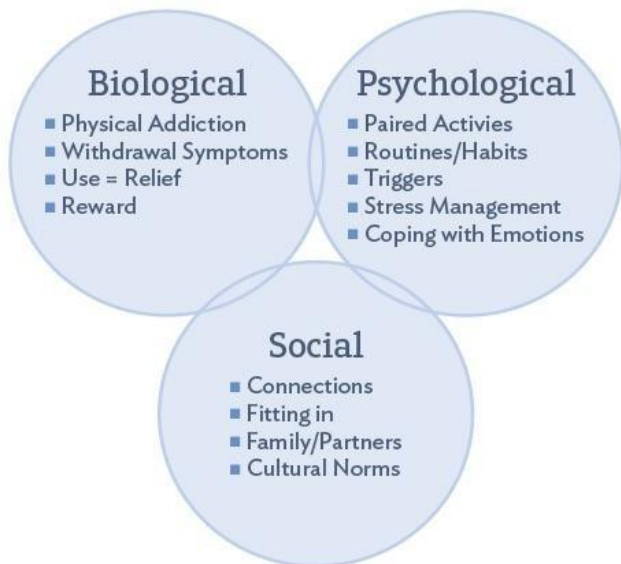
- Always discuss the benefits of quitting and harms related to smoking with your patients.
- No matter how old or how long a person's smoked, quitting can help live longer and be healthier.
- People who stop smoking before age 50 cut their risk of dying in the next 15 years in half compared with those who keep smoking.
- Ex-smokers enjoy a higher quality of life – they have fewer illnesses.

It's never too late to quit numbers differs and depends on in individual



Approaching Smokers Who Want to Quit

•The “Biopsychosocial” Model of Tobacco Dependence:



-If you want to approach individual who is smoke you need to consider all of these three factors.

-Treatment for smoking is not unique its individual based management

سوشال لأن اللي حوله يدخنون فهو قاعد يدخن ومستمر ما في سبب ثاني.
بيولوجيك لأنه أدمن عليها وما يرتاح جسمه إلا معاها فهو مستمر.
سايقو لأنه مافي سبب غير تقليد أصحابه او من دون سبب ماخذها روتين.

1 > Biological



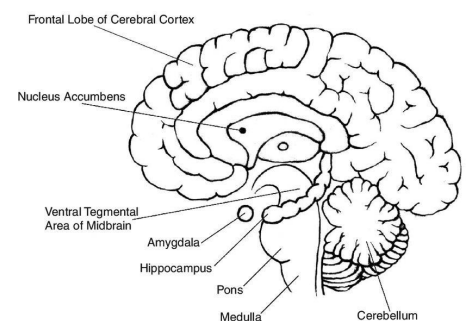
Nicotine

- Found naturally in tobacco, which is as **addictive** as heroin or cocaine.
- Over time, a person becomes **physically dependent** on and **emotionally addicted** to nicotine. عييشيد
هديد ليشيد مز لا physical
- The **physical dependence** causes unpleasant withdrawal symptoms when you try to quit.
- The **mental dependence** (addiction) make it hard to stay away from nicotine after quit.
- Nicotine in tobacco smoke inhaled into the lung is **rapidly absorbed** because of the large surface area of the alveoli and small airways.
- Nicotine **from oral tobacco products** that have an alkaline pH is readily absorbed through the oral mucosa, but more gradually than via the lungs.
- Nicotine distributes extensively to body tissues, including the liver, kidney, spleen, lung, and brain and also accumulates in gastric juice and saliva, breast milk, skeletal muscle, and fetal serum and amniotic fluid.
- The time between a puff on a cigarette until nicotine reaches the brain is **10 – 20** seconds. Nicotine rapidly absorbed average = 8 sec
- **Dependence** on nicotine is characterized by both the **persistence of a drug-taking behavior** and the **emergence of withdrawal symptoms** upon the abrupt cessation of nicotine administration

Nicotine Addiction

Nicotine and the Brain

- **Neuroadaptation leads to tolerance**
 - Occurs with repeated exposure to nicotine
 - Receptor cells are desensitized or unresponsive
 - Brain compensates by increasing receptors and binding sites - brain chemistry is altered!
- **Period of abstinence result in withdrawal symptoms**
 - After longer abstinence (e.g. sleeping) receptors become responsive again
- **End of abstinence (e.g. smoking a cigarette)**
 - Nicotine binds to the receptors
 - Alleviates cravings and withdrawal symptoms



1 > Biological cont..

Withdrawal symptoms

Peak: first to second week where the relapse rate is high

- Dizziness (which may last 1 to 2 days after quitting)
- Feelings of frustration, impatience, and anger
- Depression, Anxiety, Tiredness and Irritability
- Sleep disturbances
- Trouble concentrating
- Restlessness
- Headaches
- Increased appetite and Weight gain
- Constipation and gas
- Cough, dry mouth, sore throat, and nasal drip
- Chest tightness

Overcome Withdrawal Symptoms

Tips to Overcome Withdrawal Symptoms

- **Avoid temptation.** Stay away from people and places that tempt you to smoke.
- **Change your habits.** Switch to juices instead of coffee. Take a brisk walk instead.
- **Choose other things for your mouth:** sugarless gum or hard candy, raw vegetables such as carrot.
- **Get active with your hands:** Do something to reduce your stress like Exercise or keeps your hands busy.
- **Breathe deeply:** as you inhaled the smoke.
- **Delay:** If you feel that you're about to light up, hold off. Tell yourself you must wait at least 10 min.
- **Reward yourself.** Put the money you would have spent on tobacco in a jar every day and then buy yourself a gift.

2 > Social and Cultural Factors



Social and Cultural Factors

- **Social Factors**
 - Social determinants of health include **community, social, environmental** and **political** factors that either exist prior to an individual's choice or that influence that choice.
 - **Socio-demographic factors** are among the strongest predictors of smoking.
 - **Education and Household Income level** are among the most important.
- **Environmental Factors**
 - The likelihood of smoking increases **when those around the smoker also smoke** (e.g. coworkers, friends, family members).
 - **Access to cigarettes and smoking** environments at home, work, and social situations also increases the likelihood of smoking.
 - **The social acceptability of smoking** influences prevalence rates.

3 > Psychological Factors



Determinants of Tobacco Use Disorder Psychological Factors

Psychological Factors

- Stimulation/arousal
- Relaxation/reduce stress
- Mood regulation
- Appetite suppression
- Weight management
- Pain management
- Reduces anxiety/social facilitation

● Cognitive Effects:

- Enhanced memory
- Enhanced attention
- Increased speed of processing

People who have depression and other mental disorders they have high susceptibility to smoke

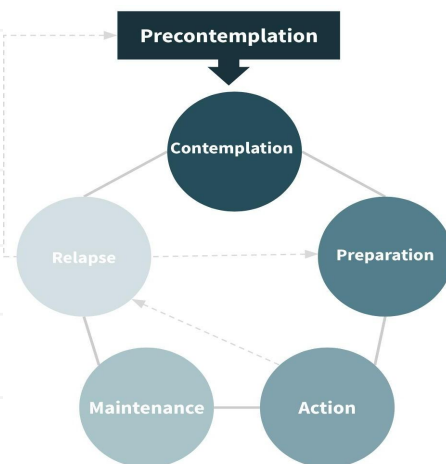
Assessment and Treatment Plan

Transtheoretical Model Stages of Change (used only as a guide)

Know what does each stage mean , in the exam it will come as scenario and will ask you in which stage this patient in.

-Its not a continuous process patient may present from any stage of these .

1	Precontemplation: No intention to quit within 6 months. person does not have intention at all to quit smoking within 6 months So the approach will be different from patient who is willing to quit tobacco smoking
2	Contemplation: Intention to quit within 6 months.
3	Preparation: Ready to quit within 30 days.
4	Action: Has quit.
5	Maintenance: Abstinent for 6 months or more
6	Relapse: Return to regular use after a period of abstinence.



1- Tobacco Assessment Components:

- Demographics
- Tobacco Use History
- Quitting History
- Social/Cultural/Environmental Factors
- Medical/Psychiatric History
- Beliefs/Stage of Change/Self-Efficacy

-Give him score from 1 to 10 and ask him how confident is he from 1-10 to quit smoking.

2- Demographics:

- Age
- Gender
- Race/Ethnicity
- **Relationship status**
- Residence
- Educational level
- Employment

3- Tobacco Use History:

- Age started
- How did you start
- Cigarettes per day
 - Lifetime
 - Current Brand (Menthol?)
- Other tobacco or e-cigarette/vaping use
- What do they like about it

4- Prior Quit Attempts:

- Number of attempts
- Time and timing: Why then?
- Specifics on longest and most recent
- Pharmacotherapy
- Other methods like groups, acupuncture
- Withdrawal symptoms
- Reason for relapse

5- Social and Environmental Factors:

- Who smokes at home
- Can you smoke in the home/car
- What about friends/co-workers
- Smoking policy at work?
- How does smoking fit into your social life
- What supports/stressors exist right now



Pharmacotherapy for the Treatment of Smoking

- Smokers who quit cold turkey (no pharmacotherapy) have a 5-15% (avg 7%) chance of long term success.
- In general, pharmacotherapy more than **doubles** the chances of success.
- Pharmacotherapy + counseling increases success.

FDA- Approved Pharmacotherapy options

➤ Monotherapy:

- Seven first-line medications

➤ Combination therapy:

- Patch + Other NRT
- Bupropion + NRT (patch, gum, lozenge, etc.)
- Varenicline + (NRT or Bupropion)

Nicotine Replacement Therapy	Non-Nicotine Medications
Patch	Bupropion SR -mainly used for the treatment of depression and its used approved by FDA in USA but not approved in KSA however it's okay to use it for depression in our country but not for smoking cessation.
Gum	Varenicline
Nasal spray	-
Inhaler	-
Lozenge	-

Nicotine Replacement Therapy



Batch



Inhaler



Gum



Spray



Lozenge

Nicotine Replacement Therapy

Mechanism of Action

- Provides 'medicinal' or 'clean' nicotine
 - Cigarettes use the best drug delivery system in our body (i.e., our lungs).
 - Reaches the brain/reward pathway within 8 seconds.
- Reduces withdrawal symptoms and craving
- Replaces oral/handling aspects of habit
- May provide some positive effects of nicotine:
 - Desirable mood
 - Improved attention

Nicotine Patch

Dose

- The NicoDerm CQ patch is available in 21, 14, and 7 mg doses.
- It is designed to be worn for 16 or 24 hours and then replaced with a new patch every day

Patch – Dosing Guideline

PATCH	
21 mg, 14 mg or 7 mg	
Dose:	1 patch every 24 hrs
Start:	21 mg patch if ≥ 10 cig/day 14 mg patch if < 10 cig/day
Duration:	~8 weeks to up to 6 months

Instructions

- **Apply patch daily in AM**
- Hold 20 seconds to improve adherence to skin
- **Apply to clean, dry, hairless area**
- Apply to upper body
- Rotate site daily
- No restrictions on activities
- If sleep disturbances develop, may remove at bedtime and apply fresh patch in AM so it doesn't lead to bad dreams
- If localized redness or irritation occurs, may use OTC steroid cream
- Remove for MRI

Nicotine Gum

Dose

- Nicotine gum is commonly used in combination with the nicotine patch.

Gum – Dosing Guideline

GUM	
2 mg or 4 mg	
Dose:	1 piece every 1-2 hrs
Start:	2mg if > 30 min to first cig 4 mg if ≤ 30 min to first cig
Max:	24 pieces/day
Duration:	Up to 6 months

M.O.A

“Chew and park” Method

PROPER CHEWING TECHNIQUE IS CRITICAL!

- Chew slowly until “peppery” taste emerges
- Then “park” gum between cheek and gums
- Slowly and intermittently “chew and park” for 30 minutes
- Avoid acidic foods and beverages while chewing the gum

Nicotine lozenge

Instructions And Dose

- Allow to dissolve slowly
- Do not bite or chew
- “Park” between cheek and gum, and move around with tongue periodically
- Avoid acidic foods and beverages while using the lozenge.

Lozenge – Dosing Guideline

LOZENGE or MINI-LOZENGE	
2 mg or 4 mg	
Dose:	1 lozenge every 1-2 hrs
Start:	2mg if > 30 min to first cig 4 mg if ≤ 30 min to first cig
Max:	20 pieces/day
Duration:	Up to 6 months

Nicotine Inhaler

Dose

- It is available by **prescription only**.
- due to that the absorption by use Nicotine replacement therapy as inhaler and spray is very fast , so it might lead to dependence over time that much we don't even prescribe it for long time. Taking it for no more than 9 months to 1 year in maximum.

Inhaler – Dosing Guideline

INHALER (Nicotrol® Inhaler)	
Dose:	6 -16 cartridges/day as needed
Max:	16 cartridges/day
Duration:	3 - 6 months

Nicotine nasal spray

Information

- Of all NRT products on the market, the nicotine nasal spray delivers nicotine to the bloodstream the most rapidly.
- Because of this, the dependency potential is greater with the spray than with other forms of NRT.
- It is available by **prescription only**.

Dose

- Most rapid delivery of nicotine
- Dose = 1 spray in each nostril
- Nasal irritation may occur, but may resolve with continued use.

Nasal Spray – Dosing Guideline

NASAL SPRAY (Nicotrol® NS) (1 dose= 1 mg= 2 sprays)	
Dose:	1 - 2 dosages per hr
Max:	5 doses/hr or 40 doses/day
Duration:	3 - 6 months


Precautions NRT

Please note the word precautions. This does not read contraindication!

- Immediate post-heart attack period
- Uncontrolled cardiac arrhythmias
- Severe or worsening angina
- Pregnancy
- Children and adolescents

Non-Nicotine Medications

Varenicline (Champix) مايستعمل اكثر من ست شهور

Information	<ul style="list-style-type: none"> - Varenicline is a prescription medicine approved by FDA in 2006 to help adults in the treatment of tobacco dependency. 										
Mechanism of Action	<p>Varenicline acts as a partial agonist/antagonist on the nicotinic acetylcholine receptors:</p> <ol style="list-style-type: none"> Providing some nicotine effects to ease the withdrawal symptoms. Blocking the effects of nicotine from cigarettes if they resume smoking. 										
Dose	<ul style="list-style-type: none"> - Start taking varenicline at least 1 week before the quit date it can be used for up to 35 days before complete abstinence. - Take 1 white tablet daily (0.5mg) for 3 days. - Then one white tablet (0.5 mg) twice daily for 4 days. - Then one blue tablet (1mg) twice daily for up to 12 weeks. <div data-bbox="1182 850 1575 1117" style="float: right; border: 1px solid black; padding: 5px;"> <p style="text-align: center;">Varenicline: Dosing Guideline</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="background-color: #4F81BD; color: white;">VARENICLINE (Chantix®)</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="background-color: #D9E1F2;">0.5 mg, 1 mg tablets</td> </tr> <tr> <td style="background-color: #D9E1F2;">Dose: (begin 8 - 35 days before quit date)</td> <td>Starting Month Pak = 0.5 mg once per day (days 1-3) 0.5 mg twice per day (days 4-7) 1 mg twice per day (days 8+) Continuing Month Pak = 1 mg twice per day</td> </tr> <tr> <td style="background-color: #D9E1F2;">Max:</td> <td>2mg/day</td> </tr> <tr> <td style="background-color: #D9E1F2;">Duration:</td> <td>12 weeks*</td> </tr> </tbody> </table> </div>	VARENICLINE (Chantix®)		0.5 mg, 1 mg tablets		Dose: (begin 8 - 35 days before quit date)	Starting Month Pak = 0.5 mg once per day (days 1-3) 0.5 mg twice per day (days 4-7) 1 mg twice per day (days 8+) Continuing Month Pak = 1 mg twice per day	Max:	2mg/day	Duration:	12 weeks*
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Max:	2mg/day										
Duration:	12 weeks*										
Side Effects	<p>Most common side effect: nausea</p> <p>-Nausea can often be managed by taking the medication in the middle of a full meal and with at least 8 oz of water.</p> <p>Other side effects include:</p> <ul style="list-style-type: none"> - headaches, abnormal dreams, constipation, insomnia, vomiting and flatulence. - Some of the side effects like nausea and insomnia may improve with dose reduction. - Anyone experiencing worsening depression or suicidal thoughts should contact their doctor immediately. <div data-bbox="1117 1705 1575 2011" style="float: right; border: 1px solid black; padding: 5px;"> <p style="text-align: center;">Non-Nicotine Medications</p>  </div>										

Summary

Types of Tobacco Products

- **electronic cigarette** or **electronic Nicotine delivery system (ENDS)** is a battery-powered vaporizer which has a similar feel to tobacco smoking.
- **Water-Pipe: Sheesha** Not safer than regular tobacco smoke.
- Causes the same diseases but more **Polycythemia** (RBCs and Hemoglobin).

Content of Cigarette

- These cancer-causing chemicals are referred to as **carcinogens**.
- **Some of the chemicals found in tobacco smoke include:**
 - Nicotine (the addictive drug that produces the effects in the brain that people are looking for).
 - Hydrogen cyanide.
 - Formaldehyde.
 - Lead.
 - Arsenic.
 - Ammonia.
 - Radioactive elements, such as polonium-210.
 - Benzene.
 - Carbon monoxide.
 - Tobacco-specific nitrosamines (TSNAs).
 - **Polycyclic aromatic hydrocarbons (PAHs). It's the most carcinogenic one.**

Risk of smoking

- Cigarette smoking causes more than 480,000 deaths each year in the United States.
- This is about one in five deaths.
- **Smoking causes more deaths each year than all of these combined:**
 - Human immunodeficiency virus (HIV).
 - Illegal drug use.
 - Alcohol use.
 - Motor vehicle injuries.
 - Firearm-related incidents.

Nicotine Replacement Therapy



Batch



Inhaler



Gum



Spray



Lozenge

Practice Questions

Q1: Polycythemia, TB and lip cancer is more common in smokers consuming?

A. Conventional cigarettes

B. Electronic Cigarettes

C. Water-pipe

D. Chewing Tobacco

Q2: Carbon monoxide will be reduced after quitting smoking for?

A. 12 Hours

B. 24 Hours

C. 20 Minutes

D. 2 Months

Q3: In a smoking cessation program, 30% of the participants reported having the intention to quit in 4 weeks. They are considered under which of the following stages?

A. Precontemplation

B. Contemplation

C. Action

D. Relapse

Q4: Which of the following is a Psychological effect of tobacco using?

A. Enhanced memory

B. Increased attention

C. Mood regulation

D. All the above

Q5: what's the most common side effects of Varenicline ?

A. Vomiting

B. Arrhythmia

C. Nausea

D. Blurred vision

Q6: which one of the following is given by prescription?

A. Inhaler

B. Patch

C. Lozenge

D. All of them

Answer 1- C 2- B 3- B 4- C 5-C 6-A

Thanks to all leaders and members
from team 439 and team 441 🤍🤍



Team Leaders:

Shahad Alaskar
Reema Alquraini
Lina Alyahya

Qusay Alsultan
Hassan Alabdullatif



The amazing Members:

Farah alhalafi
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Mohammed Alzeer
Shahad Albukhari
Walaa AlMutawa
Meznah alshammari
deema alqahtani
Fatima halawi
raghad alkhodair
Amani Alotaibi
Nouf Aldhalaan
Reema AlJabarin
Reema Alhussien

Sarah Alzahrani
Raid almadi
Rayan alahmari
Mayssar Alshobaki
Kadi aldossari
Noura bin hammad
Mayssam Aljaloud
Rahaf Almotairi
Lana Alhumaidhi
Jana Alhazmi
Yazeed Alsanad
Safia Aldkhyyl
Haifa Almuddahi
Omar Kadhi
Saad Alsahli