

PHC

432 Team

22 SMOKING



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Objectives

- **Epidemiology of smoking in Saudi Arabia**
- **Risks of smoking (Morbidity and Mortality)**
- **Effect of passive smoking on pregnancy, children,**
- **How are you going to help the smoker to quit and how to overcome withdrawal symptoms**
- **Role of PHC physician “smoking cessation clinic’**
- **Update in pharmacological management, smoking cessation medication**
- **Nicotine preparations, Varniciline, Bupropion,**

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The doctor mentioned that there is a possibility of bringing this topic on the **OSCE:**

A simulated patient who is a smoker OR want to Quit smoking will seek your help,, and you have to take proper history first and help him to quit smoking.
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- **Smoking** is the exposure to a substance, most commonly tobacco or cannabis, that is burned and the smoke either tasted or inhaled.
 - Tobacco use is the **LEADING PREVENTABLE** cause of death!
 - **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
 - **Every 6.5 seconds someone dies from tobacco use!**

Risks of smoking :

- Smoking can cause cancer almost anywhere in your body
- **Secondary polycythemia:** occurs when the body is deprived of oxygen for extended periods of time, such as in heavy smokers
- About 80% of all deaths from chronic obstructive pulmonary disease (COPD) are caused by smoking.
- Impaired lung growth during childhood and adolescence.
- increased susceptibility to pneumonia
- **Cardiovascular disease is the main cause of death due to smoking.**
- **Smokers are more likely to have a stroke than non-smokers.**
- Heavy smokers (consuming 20 or more cigarettes a day) have 2-4 times greater risk of stroke than non-smokers.
- Stained teeth.
- Gum inflammation.
- Black hairy tongue.
- Oral cancer.
- Delayed healing of the gums.
- Smokers are 60% more likely to be infertile than non smokers .

Smoking (in pregnancy) increases risks for: Very imp

- Placenta previa
- Abrupto Placenta
- Preterm delivery
- Stillbirth
- Low birth weight
- Sudden infant death syndrome
- Ectopic pregnancy
- Facial clefts in infants.

Types of smoking:

1)Active smoking:

is the intentional inhalation of smoke using the methods of smoking such as: cigarettes and cigars.

2)Passive smoking(second-hand smoking):

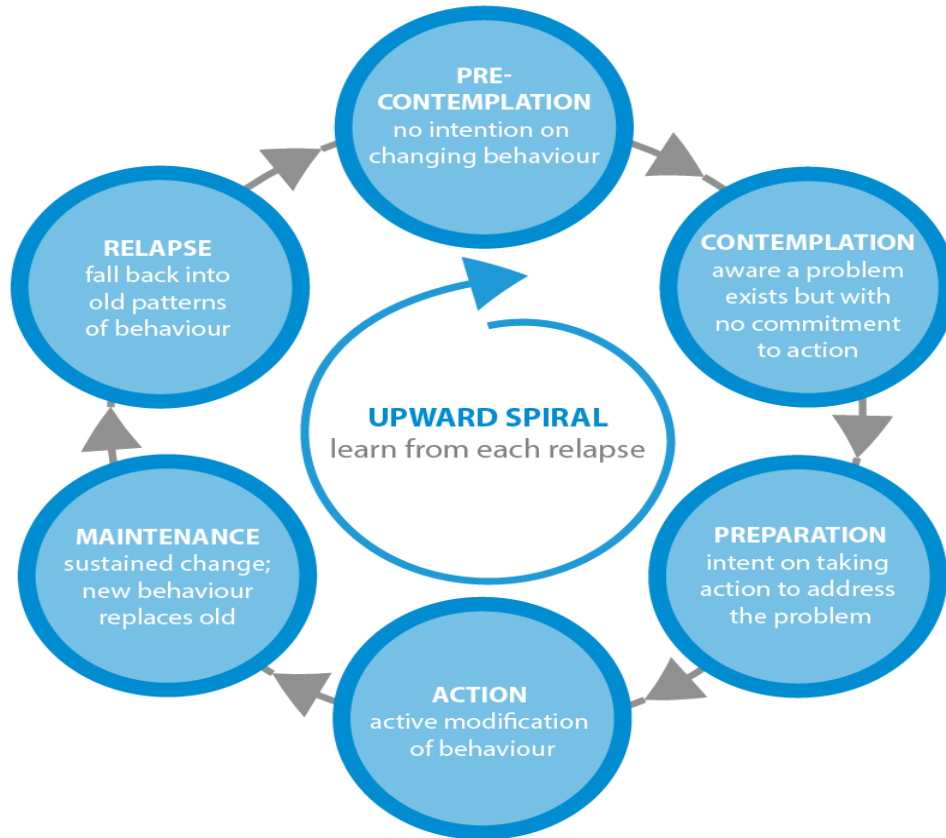
Is the inhalation of smoke by persons other than the intended 'active' smoker. Kids are particularly at risk for the effects of second hand smoke because their bodies are still growing and they breathe at a faster rate than adults.

➤ Conditions have been linked to second-hand smoke exposure in children: Imp

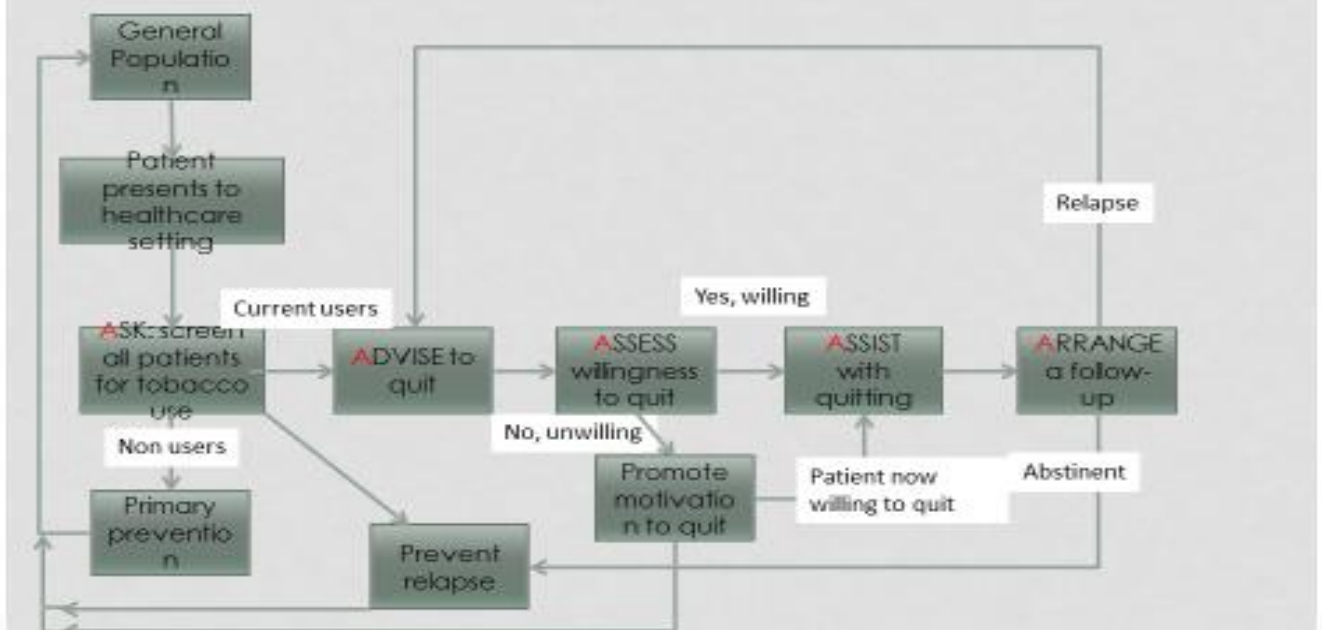
- Sudden infant death syndrome (SIDS)
- More respiratory infections (such as bronchitis and pneumonia)
- More severe and frequent asthma attacks
- Ear infections
- Chronic cough

- **Quitting smoking:**(Five-stage Trans-theoretical Model)

STAGES OF CHANGE



MODEL FOR TREATMENT OF TOBACCO USE AND DEPENDENCE



The 5 As :

- **Ask:**

Identify and document tobacco use status for every patient at every visit.

- **Advise:**

In a clear, strong, and personalized manner, urge every tobacco user to quit.

- **Assess:**

Is the tobacco user willing to make a quit attempt at this time?

- **Assist:**

For the patient willing to make a quit attempt, use counseling and pharmacotherapy to help him or her quit.

- **Arrange:**

Schedule follow-up contact, in person or by telephone, preferably within the first week after the quit date.

Smoking Cessation Clinic

- Assessing the smoker referred from other clinics or walking by taking medical History, measuring Height and Weight, Measuring the lung functions by the **Spirometer**.
- Counseling the smokers by a Physician to cut down the number of cigarettes gradually.
- Prescribe nicotine replacement treatments for the smokers.
- Follow up with the Quit smokers to avoid any relapses.

Withdrawal Symptoms:

Medscape® www.medscape.com	
Withdrawal symptom	Duration
Depressed mood	< 4 weeks
Sleep disturbance	< 2 weeks
Irritability	< 4 weeks
Difficulty concentrating	< 2 weeks
Restlessness	< 4 weeks
Increased appetite and increased weight	> 10 weeks
Decreased heart rate	> 10 weeks
Constipation	> 4 weeks
Mouth ulcers	> 4 weeks

Source: Br J Cardiol © 2005 Sherbourne Gibbs, Ltd.

Pharmacological management:

All seven of the FDA-approved medications for treating tobacco use are recommended:

- a. Nicotine Replacement Therapy
(nicotine gum, nicotine inhaler, nicotine lozenge, nicotine nasal spray and nicotine patch).
- b. bupropion.
- c. varenicline.

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There are no well-accepted guidelines for optimal selection among the first-line medications, the clinician should consider the first-line medications shown to be more effective.

• Nicotine Replacement Therapy

1- The nicotine patch:

The nicotine skin patch is the easiest to use.

Side effects : Skin reactions, insomnia and vivid dreams.

2- Nicotine gum & nicotine lozenge:

Side effects: mouth soreness, hiccups, dyspepsia, jaw ache, mouth irritation and excessive salivation.

3- Nicotine nasal spray:

Nicotine is absorbed faster.

Side Effects :

Nasal/airway reactions.

Dependency.

Rhinitis and tearing.

4- Nicotine inhalator:

The nicotine does not reach the lungs but stops in the mouth and throat.

Side effects:

Local irritation reactions, Coughing and rhinitis .

• Bupropion:

Side effects – The most common reported side effects were **insomnia** (35–40%) and dry mouth (10%).

Neuropsychiatric effects - risks of suicidal/self-injurious.

Contraindications– Bupropion SR is **contraindicated in individuals who have a history of seizures** or eating disorders.

Dosage :

Patients should begin bupropion SR treatment **1–2 weeks before they quit smoking**. It should be continued for 7–12 weeks.

• Varenicline:

Side effects :

- **Neuropsychiatric effects**
- Abnormal dreams
- **Cardiovascular effects** - based on limited evidence
- headache
- nausea
- insomnia
- visual disturbances

Dosage :

Start varenicline 1 week before the quit date.

Varenicline is approved for a maintenance indication for **up to 6 months**.

Table 1. Smoking Cessation First-Line Pharmacotherapy

Drug Type	Typical Dosage	Therapy Duration	Common Side Effects
Varenicline	0.5 mg once daily for 3 days, then 0.5 mg twice daily for 4 days, then 1 mg twice daily	12 wk; may continue another 12 wk to maintain success	Nausea, insomnia, headache, abnormal dreams
Bupropion SR	150 mg once daily for 3 days, then increase to 150 mg twice daily	7-12 wk; may continue up to 6 mo if successful	Tachycardia, headache, insomnia, dizziness, xerostomia, weight loss
Nicotine gum and lozenge	2 or 4 mg per piece/lozenge Wk 1-6: 1 piece q1-2h Wk 7-9: 1 piece q2-4h Wk 10-12: 1 piece q4-8h	12 wk	Headache, dyspepsia, nervousness
Nicotine patches	7-, 14-, and 21-mg patches. Apply a 14- or 21-mg patch daily for 6 wk, then step down 1 level for 2 wk, then step down again for 2 wk if necessary	8-10 wk	Application site reaction, headache, rhinitis
Nicotine nasal spray	1-2 sprays per hour; max 10 sprays per hour or 80 sprays per day	3-6 mo	Sneezing, coughing, watery eyes, throat irritation
Nicotine inhaler	4 mg delivery per cartridge; inhale 6-16 cartridges per day	3 mo initially; may wean off for 6-12 more wk	Headache, dyspepsia, cough, mouth/throat irritation, rhinitis

max: maximum; SR: sustained release. Source: References 6, 12.

○ **Summary :**

- ❖ Cardiovascular disease is the main cause of death due to smoking.
- ❖ Heavy smokers have 2-4 times greater risk of stroke than non-smokers.
- ❖ Risks for Smoking in pregnancy.
- ❖ Five-stage Trans-theoretical Model
- ❖ The 5 As
- ❖ Withdrawal Symptoms

- ❖ **Pharmacological management:**
- ❖ **Nicotine patch:** insomnia and vivid dreams.
- ❖ **Nicotine gum:** mouth soreness , jaw ache.
- ❖ **Nicotine nasal spray:** the fastest.
- ❖ **Nicotine inhalator:** rhinitis.
- ❖ **Bupropion:**
 - Most common reported side effects were insomnia
 - Contraindicated in individuals who have a history of seizures.
- ❖ **Varenicline:** Neuropsychiatric effects.

Questions

1- What is the main cause of death due to smoking?

- a) CVD
- b) COPD
- c) Lung Cancer
- d) Bladder cancer

2- Smoking can increase risk of having coronary artery disease or CHD than non-smoking by?

- a) 0 times
- b) 0-1 times
- c) 1-2 times
- d) 2-4 times

3- A pregnant lady came to the clinic for getting advice on her pregnancy, while talking she admitted that she is a heavy smoker. What is your advice to her?

- a) Smoking has no effect and she can smoke as much as she wants.
- b) Smoking is dangerous and she must reduce her smoking habit.
- c) Smoking has a very harmful effect on the baby and she has to quit immediately.
- d) Smoking has harmful effect but as long as she takes the right medications and the appropriate medication her baby will be safe.

4- Which of the following is a CONTRAINDICATION of using Bupropion to quit smoking:

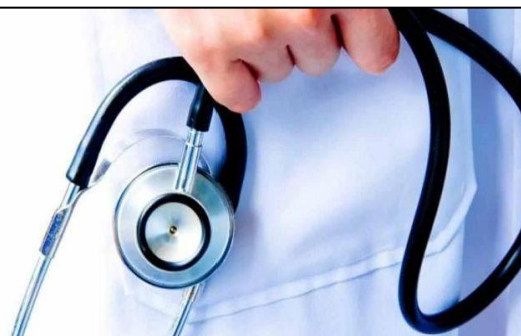
- a) Old age.
- b) Post menopausal woman
- c) Epileptic Patient
- d) Patients with Patent foramen Ovale.

5- What is the primary reason which prevent many smokers from stopping smoking:

- a) Old age.
- b) Its cheap cost
- c) Not harmful.
- d) Dependence on nicotine.

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Answers:

1st Questions: a

2nd Questions: d

3rd Questions: c

4th Questions: c

5th Questions: d