جامعة الملك سعود
King Saud University

King Saud University
College of Medicine
Family Medicine | FMED 421

Women's Health

Student Led Seminar (SLS)

Supervisor: Dr. Lemmese Alwatban

Tuesday | February 12th, 2019

NOTE: The doctor refused to review the content and she said "overall it is good."

Objectives

Students should focus on disease prevention, health promotion, and periodic health evaluation for women, which include:

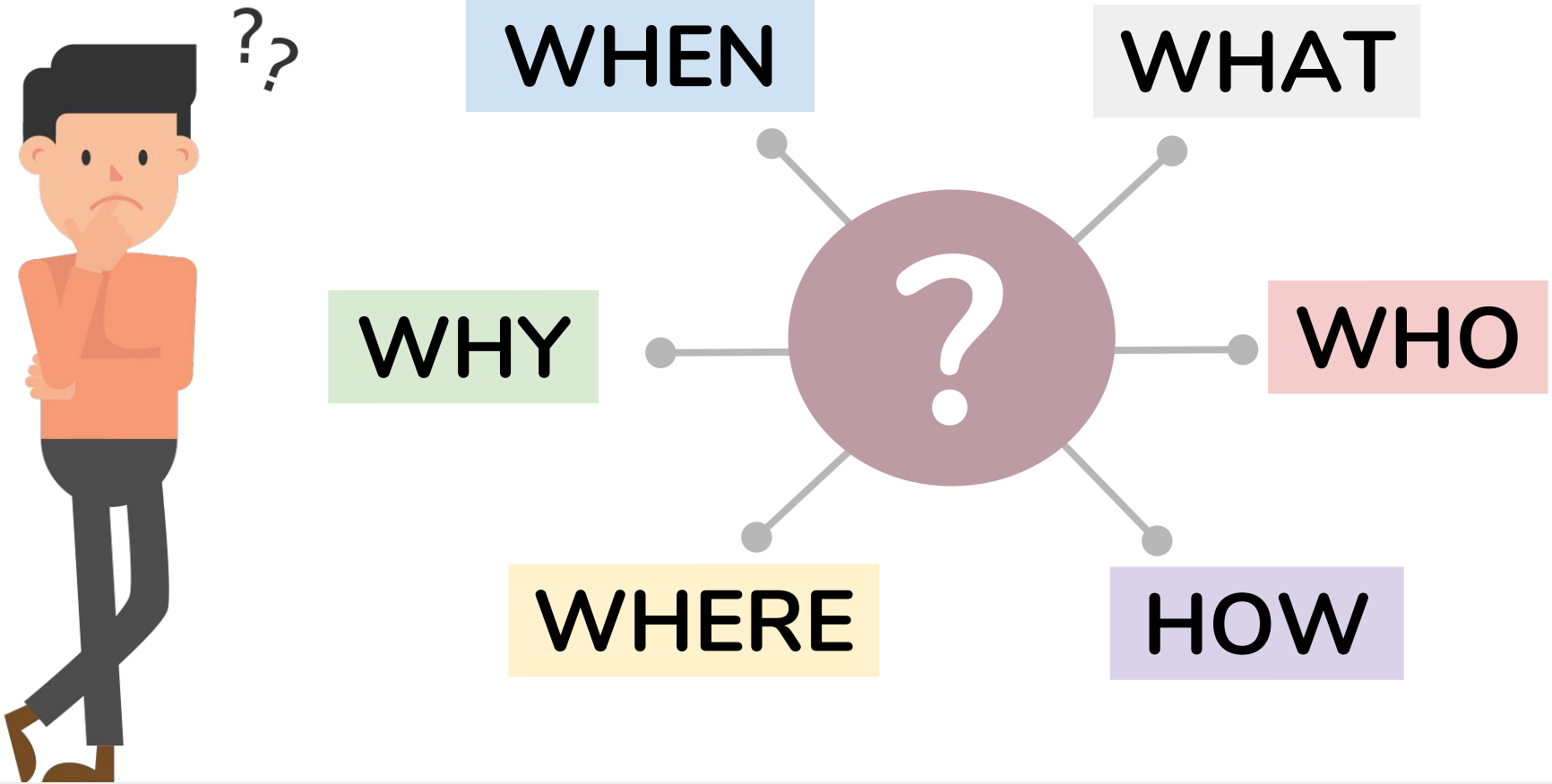
- **Screening:**
  - Screening of cervical cancer, breast cancer, colorectal cancer, and osteoporosis.
  - Tobacco use, alcohol misuse, intimate partner violence, dyslipidemia, diabetes, blood pressure and depression.
  - Screening of chlamydia, gonorrhea, and syphilis.
- **CVD:** use of Aspirin for primary prevention for CVD. Risks and unique presentations of CVD in women.
- **Immunizations:** recommended immunizations for women.
- **Counseling:**
  - Counseling of high-risk sexually active women to reduce the risk of sexually transmitted infections.
  - Preconception and contraception counseling of premenopausal women.
  - Counseling for menopause.

Multiple Choice Questions

*https://www.surveymonkey.com/r/3DTVKN8

Screening

Screening of **cervical cancer**, **breast cancer**, **colorectal cancer**, and **osteoporosis**.


??
WHEN
WHAT
WHY
?
WHO
WHERE
HOW

WHY Rationale

- **Prevalent**
  It is a huge burden worldwide. It has the highest morbidity and mortality.
- **Predisposition**
  Females are more prone to develop those diseases in comparison to their counterparts and carry more risk.
- **Preventable**
  Availability of screening methods.
  Early detection & intervention can save lives.
- **Pernicious**
  Debilitating and might lead to serious sequelae if not recognized and treated early.
- **Profitable**
  Cost-effective.

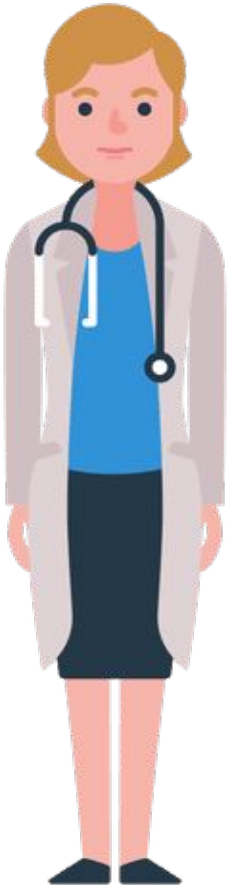
P

Global cancer incidence in women, 2018 (total=8,218,216)

Rank	Cancer	New cases diagnosed in 2018	% of all cancers (excl. non-melanoma skin cancer)
1	Breast	2,088,849	25.4
2	Colorectal	794,958	9.7
3	Lung	725,352	8.8
4	Cervix uteri	569,847	6.9
5	Thyroid	436,344	6.3

Source: Bray F, Ferlay J, Soerjomataram I, Siegel RL, Torre LA, Jemal A. Global Cancer Statistics 2018: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. CA Cancer J Clin, in press. The online GLOBOCAN 2018 database is accessible at http://gco.iarc.fr/, as part of IARC's Global Cancer Observatory.

WHERE



PHC

Usually done by **family physicians**

Screening for
Breast Cancer

HOW Methods

Conventional Digital Mammography

Note:

- Ultrasound is not used to screen for breast cancer.
- Self-examination; appears to be ineffective and is not supported by evidence.
- Clinical Breast Examination (CBE); not supported by evidence.
- MRI might be used with high-risk groups; not supported by evidence.

WHO

Population

- Asymptomatic.
- ≥ 40 years years old.
- No pre-existing breast cancer.
- Not previously diagnosed with high-risk breast lesion
- Not at high risk for breast cancer because of:
  - A known underlying genetic mutation (such as a BRCA1 or BRCA2 gene mutation or other familial breast cancer syndrome) **OR**
  - A history of chest radiation at a young age.

WHEN

Breast Cancer Screening with Conventional Digital Mammography	
Age	**Recommendation**
< 40	For women with an estimated lifetime breast cancer **risk of more than 20%** or who have a ***BRCA* mutation**, screening should begin at 25 years of age or at the age that is five to 10 years younger than the **earliest age** that breast cancer was **diagnosed in the family.**
40 to 49	**The decision to start screening should be an individual one.** Women who place a higher value on the potential benefit than the potential harms may choose to begin biennial screening. **Women with a first-degree relative** (parent, sibling, or child) with breast cancer may benefit from beginning screening in their 40s.
50 to 74	Screen every 2 years.
≥ 75	No recommendations. (insufficient evidence)

WHEN

The most commonly used risk-prediction model, the Breast Cancer Risk Assessment Tool, is available on the National Cancer Institute (http://www.cancer.gov/bcrisktool/)

Table 1. Primary Screening for Breast Cancer with Conventional Mammography: Clinical Summary of the USPSTF Recommendation

Population	Women aged 40 to 49 years	Women aged 50 to 74 years	Women aged ≥ 75 years
Recommendation	The decision to start screening should be an individual one. Grade: C	Screen every 2 years. Grade: B	No recommendation. Grade: I statement (insufficient evidence)
Risk assessment	These recommendations apply to asymptomatic women aged ≥ 40 years who do not have preexisting breast cancer or a previously diagnosed high-risk breast lesion and who are not at high risk for breast cancer because of a known underlying genetic mutation (such as a *BRCA1* or *BRCA2* gene mutation or other familial breast cancer syndrome) or a history of chest radiation at a young age. Increasing age is the most important risk factor for most women.		
Screening tests	Conventional digital mammography has essentially replaced film mammography as the primary method for breast cancer screening in the United States. Conventional digital screening mammography has about the same diagnostic accuracy as film overall, although digital screening seems to have comparatively higher sensitivity but the same or lower specificity in women aged < 50 years.		
Starting and stopping ages	For women who are at average risk for breast cancer, most of the benefit of mammography results from biennial screening during ages 50 to 74 years. While screening mammography in women aged 40 to 49 years may reduce the risk for breast cancer death, the number of deaths averted is smaller than that in older women and the number of false-positive results and unnecessary biopsies is larger. The balance of benefits and harms is likely to improve as women move from their early to late 40s.		
Screening interval	For most women, biennial mammography screening provides the best overall balance of benefit and harms.		
Treatment and interventions	These recommendations apply to asymptomatic women aged ≥ 40 years who do not have preexisting breast cancer or a previously diagnosed high-risk breast lesion and who are not at high risk for breast cancer because of a known underlying genetic mutation (such as a *BRCA1* or *BRCA2* gene mutation or other familial breast cancer syndrome) or a history of chest radiation at a young age. Increasing age is the most important risk factor for most women.		
Balance of benefits and harms	The net benefit of screening mammography in women aged 40 to 49 years, while positive, is small.	The net benefit of screening mammography in women aged 50 to 74 years is moderate.	Evidence on mammography screening in women aged ≥ 75 years is insufficient, and the balance of benefits and harms cannot be determined.
Other relevant USPSTF recommendations	The USPSTF has made recommendations about the use of medications to reduce women's risk for breast cancer, as well as risk assessment, genetic counseling, and genetic testing for *BRCA1*- or *BRCA2*-related cancer (including breast cancer). These recommendations are available on the USPSTF Web site (http://www.uspreventiveservicestaskforce.org).		

NOTE: *For a summary of the evidence systematically reviewed in making this recommendation, the full recommendation statement, and supporting documents, go to http://www.uspreventiveservicestaskforce.org/.*

USPSTF = U.S. Preventive Services Task Force.

Screening for

Colorectal Cancer

HOW

Stool-Based Screening		
Quick, noninvasive, and can be done in the home.		
Guaiac-based fecal occult blood test (gFOBT)	**Fecal immunochemical test (FIT)**	**Multitarget stool DNA test (FIT-DNA)**
• **Most common** stool-based test for CRC screening worldwide. • Individuals must submit **three stool samples collected at home.** • **Avoid heme containing foods** before the test. • **Office-based** gFOBT is **not recommended** for CRC screening.	• FIT is **more sensitive and specific** than gFOBT for detecting CRC. • Needs only a **single stool sample.** • **Does not require any dietary restrictions.**	• Significantly more **expensive**. • Found to be **more sensitive but less specific** than FIT. • Both FIT and FITDNA have **poor sensitivity for detecting adenomatous polyps** and serrated polyps measuring 1 cm or greater.

HOW

Direct Visualization Screening

Allow for the identification of adenomatous polyps and serrated polyps before their progression to CRC.

Colonoscopy ★	Computed tomographic colonography (CTC)	Flexible sigmoidoscopy
• Polyps can be removed during the procedure, whereas polyps found using other methods require follow-up colonoscopy. • Harms may occur during: - **Bowel preparation** (e.g., dehydration, electrolyte imbalances) - **Sedation or anesthesia** (e.g., cardiovascular events). - **The procedure itself** (e.g., colonic perforations, bleeding).	• Also called virtual colonoscopy. • Alternative screening test, but supporting evidence is limited to studies of its test characteristics. • Radiation exposure from a single CTC is equivalent to 70 chest radiographs. • Requires bowel preparation but not administration of intravenous contrast media.	• May be performed in the office without sedation. • Requires bowel preparation.

HOW

What to choose?

Family physicians can help their patients choose a test for CRC screening by reviewing test **characteristics**, **benefits**, **harms**, **burdens**, and **costs**. In addition to the **advantages and disadvantages** of each test, physicians must consider **patient preference**, **comorbidities**, **test availability**, l**ikelihood that the test will be completed,** and **availability of resources for follow-up** of abnormal test results.

HOW

TABLE 2

Advantages, Disadvantages, and Costs of Colorectal Screening Tests

Description	CPT code	Advantages	Disadvantages	Cost*
Colonoscopy	45378	Ability to detect and remove polyps Visualizes the entire colon	Requires comprehensive bowel preparation Takes 20 to 30 minutes plus recovery time Patient may not drive or return to work if sedation is given	$1,700
Computed tomographic colonography	74261	10- to 15-minute examination Noninvasive imaging of entire colon Sedation is not required Patient may drive and return to work after procedure	Requires bowel preparation similar to colonoscopy Requires rectal tube to insufflate air into colon, which may cause cramping Exposure to radiation May miss small or flat polyps Detection of extracolonic findings may lead to additional testing Positive test result requires colonoscopy	$500
FIT	82274	At-home single stool sample Easy, safe, and convenient Not affected by diet or medications	Must be repeated annually Positive test result requires colonoscopy	NA
Flexible sigmoidoscopy	45330	Safer and more convenient than colonoscopy Takes about 10 minutes to complete Most patients may drive and return to work after procedure	Requires bowel preparation with enemas Only visualizes the distal third of colon Not typically done with sedation Positive test result requires colonoscopy	$1,000
Guaiac-based fecal occult blood test	82270	At-home stool collection Easy, safe, and convenient	Must be repeated annually Requires dietary restrictions Requires three samples Positive test result requires colonoscopy	$10
Multitargeted stool DNA test (FIT-DNA)	81528	At-home stool collection Easy, safe, and convenient Does not require dietary restrictions or bowel preparation	Expensive compared with other stool-based tests Positive test result requires colonoscopy	NA

CPT = *Current Procedural Terminology*; FIT = fecal immunochemical test; NA = not available.

*—Estimated price per procedure based on information obtained at https://www.healthcarebluebook.com. Accessed December 18, 2017.

WHO

Average-risk Group

- Asymptomatic.
- 50 to 75 years years old.
- No personal or family history of adenomatous polyps.
- No other illness that predisposes to CRC (e.g., inflammatory bowel disease, familial adenomatous polyposis, hereditary nonpolyposis colorectal cancer

WHEN

Colorectal Cancer Screening	
Age	**Recommendation**
50 to 75	Screening is recommended.
76 to 85	The decision should be individualized based on **overall health, previous screening, willingness to undergo treatment for CRC if found, and comorbid conditions**

WHEN

Stool-Based Screening		
Guaiac-based fecal occult blood test (gFOBT)	**Fecal immunochemical test (FIT)**	**Multitarget stool DNA test (FIT-DNA)**
Should be performed **yearly**.	Should be performed **yearly**.	Should be performed **every one to three years,** but it is reimbursed by Medicare only every three years.

Direct Visualization Screening		
Colonoscopy	**Computed tomographic colonography (CTC)**	**Flexible sigmoidoscopy**
Recommended **every 10 years in average-risk persons** with normal findings and good bowel preparation.	Recommended **every five years**.	The USPSTF recommends screening with flexible sigmoidoscopy **every five years**.

Recommendations from the Choosing Wisely Campaign

Recommendation	Sponsoring organization
Do not repeat colorectal cancer screening (by any method) for 10 years after a high-quality colonoscopy is negative in average-risk individuals.	American Gastroenterological Association
Avoid colorectal screening tests on asymptomatic patients with a life expectancy of less than 10 years and no family or personal history of colorectal neoplasia.	American College of Surgeons
Do not recommend screening for breast, colorectal, prostate, or lung cancers without considering life expectancy and the risks of testing, overdiagnosis, and overtreatment.	American Geriatrics Society

Source: For more information on the Choosing Wisely Campaign, see http://www.choosingwisely.org. For supporting citations and to search Choosing Wisely recommendations relevant to primary care, see https://www.aafp.org/afp/recommendations/search.htm.

Screening for
Cervical Cancer

HOW

Cytology “Pap smear”	
Conventional	Liquid-based
A Pap test sample affixed to a slide at the time of testing	A newer method for collecting, transporting, and preparing cells collected by the Pap test in a liquid medium

Both methods are acceptable and have nearly equivalent sensitivity and specificity for detection of high-grade CIN

HPV testing

HPV DNA & HPV mRNA

- **High risk (oncogenic)**
  Type 16 & 18
- **Low risk (benign)**
  Type 6 & 11

Co-testing

Cytology

+

HPV testing

More sensitive than cytology alone in detecting CIN2 and CIN3

WHO

Average-risk Group

- Asymptomatic.
- 21-65 years old.
- Sexually active.
- Immunocompetent.
- Did not undergo a total hysterectomy.

WHEN

Age-Based Cervical Cancer Screening Recommendations for Average-Risk Women	
Age	**Recommendation**
< 21	Not recommended.
21 to 29	Cytology alone every three years.
30 to 65	Co-testing every 5 years (preferred) **OR** Cytology alone every three years.
> 65	Not recommended with adequate history of negative screening results and who are not otherwise at high risk of cervical cancer.

Source: American Academy of Family Physicians (AAFP), American College of Obstetricians and Gynecologists (ACOG), American College of Physicians (ACP), American Cancer Society (ACS), American Society for Colposcopy and Cervical Pathology (ASCCP) = American Society for Clinical Pathology (ASCP), Society of Gynecologic Oncology (SGO), U.S. Preventive Services Task Force (USPSTF).

Exceptions	
Symptomatic	Should undergo diagnostic testing rather than screening.
Visible cervical lesions on speculum examination	
Immunocompromised.	• Initiate screening within one year of onset of sexual activity or, if already sexually active, within the first year but no later than 21 years of age. • Continue screening throughout the woman's lifetime—annually until sufficient negative screenings are achieved.Then, very three years; • Screening is not stopped at 65 years of age. • Cotesting is not recommended for women younger than 30 years.
Total hysterectomy (with removal of the cervix) **unrelated to cancer**	Screening should be stopped
Total hysterectomy (with removal of the cervix) **related to cancer**	Continue screening for 20 years after hysterectomy with cotesting every five years (preferred) or cytology alone every three years (acceptable)

SORT: KEY RECOMMENDATIONS FOR PRACTICE

Clinical recommendation	Evidence rating	References
Cervical cancer screening in women before 21 years of age leads to more harms than benefits and does not reduce cervical cancer incidence or mortality.	A	4, 14, 16, 18, 20
Average-risk women 21 to 29 years of age should be screened every three years with cytology alone.	A	4, 16, 18, 20
Average-risk women 30 to 65 years of age should be screened every three years with cytology alone or every five years with a combination of cytology and HPV testing.	A	4, 16, 18, 20
Cervical cancer screening should be discontinued in women older than 65 years with an adequate history of negative screening results.	C	4, 16, 18, 20
Annual cervical cancer screening is not recommended for average-risk women of any age.	A	4, 16, 18, 20
Women with a hysterectomy unrelated to cancer should not be screened for cervical cancer.	C	4, 16, 18, 20
Women with a hysterectomy related to a history of cancer should be screened for cervical cancer for 20 years after the hysterectomy.	C	4, 16, 18, 20
Primary HPV testing may be considered for cervical cancer screening every three years in women 25 years and older.	B	4, 15, 23

HPV = human papillomavirus.

A = consistent, good-quality patient-oriented evidence; **B** = inconsistent or limited-quality patient-oriented evidence; **C** = consensus, disease-oriented evidence, usual practice, expert opinion, or case series. For information about the SORT evidence rating system, go to http://www.aafp.org/afpsort.

BEST PRACTICES IN PREVENTIVE MEDICINE

Recommendations from the Choosing Wisely Campaign

Recommendation	Sponsoring organization
Do not perform annual cervical cytology (Pap test) or annual HPV screening in immunocompetent women with a history of negative screening.	American Society for Colposcopy and Cervical Pathology
Do not perform cervical cytology (Pap test) or HPV screening in immunocompetent women younger than 21 years.	American Society for Colposcopy and Cervical Pathology
Do not perform low-risk HPV testing.	American Society for Clinical Pathology
Do not perform cervical cytology (Pap test) in women younger than 21 years or in women after total hysterectomy for benign disease.	American Academy of Family Physicians
Do not perform screening for cervical cancer in low-risk women 65 years or older or for women who have had a total hysterectomy for benign disease.	American College of Preventive Medicine

HPV = human papillomavirus; Pap = Papanicolaou.

Source: For more information on the Choosing Wisely Campaign, see http://www.choosingwisely.org. For supporting citations and to search Choosing Wisely recommendations relevant to primary care, see http://www.aafp.org/afp/recommendations/search.htm.

Screening for
Osteoporosis

HOW Methods

Central DEXA

- Hip & lumbar spine.
- Provides measurement of bone mineral density.
- T-score
  - Osteopenia: -1.0 to -2.5
  - **Osteoporosis: < -2.5**
  - Severe osteoporosis: < -3.5

Alternatives: Peripheral DEXA or Quantitative US

+

Clinical risk assessment

Several tools are available to assess osteoporosis risk, such as OST, ORAI, OSIRIS, SCORE, and **FRAX**.
https://www.sheffield.ac.uk/FRAX/tool.aspx?country=9

TABLE 2

Characteristics of the Most Common Bone Measurement Screening Tests for Osteoporosis

Screening test	Description	Other considerations
Central DXA	Most commonly studied and used bone measurement test to screen for osteoporosis; reference to which other tests are compared; uses radiation to measure BMD at the hip and lumbar spine	Most treatment guidelines recommend using BMD, as measured by central DXA, to define osteoporosis and the treatment threshold to prevent osteoporotic fractures
Peripheral DXA	Uses radiation to measure BMD at peripheral sites, such as the lower forearm and heel; similar accuracy to that of central DXA (AUC, 0.67-0.80 in women with a mean age of 61 years [2 studies; n = 712])	Measured with portable devices, which may help increase access to screening in locations where machines that perform central DXA are not available; no treatment studies reviewed by the USPSTF used BMD measured by peripheral DXA to define treatment threshold
QUS	Uses ultrasound to evaluate peripheral bone sites (most commonly, the calcaneus); similar accuracy to that of central DXA (pooled AUC: 0.77 in women [7 studies; n = 1969] and 0.80 in men [3 studies; n = 5142])	No exposure to radiation; measured with portable devices, which may help increase access to screening in locations where machines that perform central DXA are not available; does not measure BMD, and no treatment studies use QUS measurements to define treatment threshold; cannot be routinely used to initiate treatment without further DXA measurement

AUC = area under the curve; BMD = bone mineral density; DXA = dual-energy x-ray absorptiometry; QUS = quantitative ultrasound; USPSTF = U.S. Preventive Services Task Force.

WHO

Population

- ≥ 65 years years old.
- Postmenopausal women younger than 65 years at increased risk:
  - Previous fracture.
  - Parental history of hip fracture.
  - Smoking.
  - Excessive alcohol consumption.
  - Glucocorticoids.
  - Low body weight

WHEN

Osteoporosis Screening	
Age	**Recommendation**
< 65	Postmenopausal women younger than 65 years who have at least 1 risk factor, a reasonable approach to determine who should be screened with bone measurement testing is to use a **clinical risk assessment tool.**
≥ 65	**Start screening.** Applies to **older adults without a history of low-trauma fractures and without conditions that may cause secondary osteoporosis** (such as metabolic bone disease or untreated hyperthyroidism) **and patients without conditions that may increase their risk of falls.** This recommendation **does not apply to persons who take long-term medications that may cause secondary osteoporosis** (e.g., glucocorticoids, aromatase inhibitors, or gonadotropin-releasing hormone agonists).

WHEN

Screening Intervals

Some observational and modeling studies have suggested screening intervals based on **age, baseline BMD, and calculated projected time to transition to osteoporosis.** However, limited evidence from 2 good-quality studies found no benefit in predicting fractures from repeating bone measurement testing **4 to 8 years after initial screening.**

Screening for **tobacco use**, **alcohol misuse**, **intimate partner violence**, **dyslipidemia**, **diabetes**, **blood pressure and depression**.

Screening for
TOBACCO SMOKING

WHO ?

Ask **all** patients about their use of tobacco products at every visit ?

WHY ?

Tobacco use is major cause of death .

Major risk factor for heart attacks, strokes, chronic obstructive pulmonary disease (COPD), Idiopathic Pulmonary Fibrosis (IPF), emphysema, and cancer ...etc

Smoking during and after **pregnancy** is a risk factor of Sudden Infant Death Syndrome (SIDS)

Baby born may have birth defect , cleft lip and various other disorder .

HOW ?

- History
- smoking questionnaire

Tobacco Screening Measure

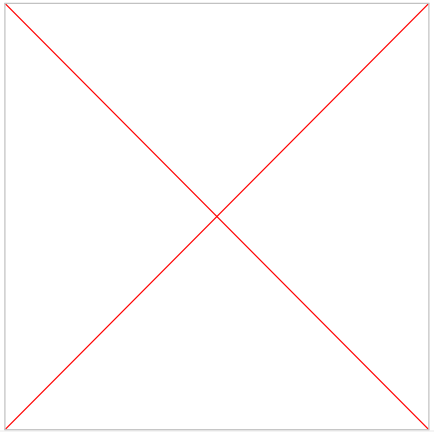
All patients should be screened for tobacco use by asking the following questions:

1. **"Have you ever smoked cigarettes or used other tobacco products?"**
   If **"YES"**, ask question 2.
2. "Have you smoked/used any in the **past 30 days**?"
   If **"YES"**, ask questions 3 and 4.
3. "On average, how many cigarettes do you smoke (or times do you use) **per day**?"
4. "How long have you been smoking (using) at that rate?"

   ➢ If daily use, can administer the **Fagerstrom Test for Nicotine Dependence (FTND)**

Key: **#2:** Any use is considered a positive screen for tobacco.

#3 x **#4**: "pack-years"



Screening for
Alcohol misuse

WHO? Adults women 18 years or older

WHEN ? Evidence is lacking to determine the optimal interval for screening for alcohol misuse in adults.

WHY ?

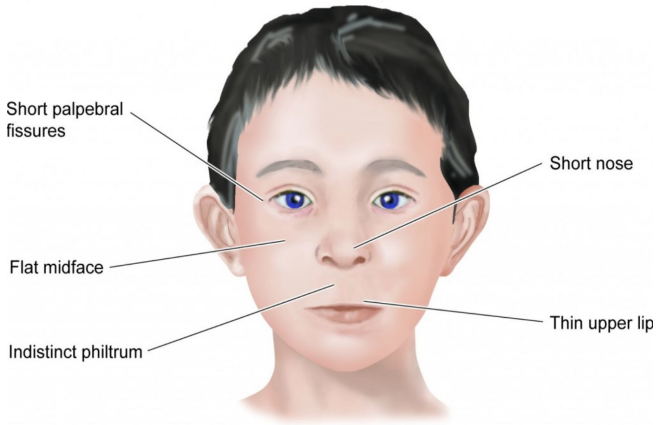
Alcohol misuse is associated with considerable morbidity and mortality (100,000 deaths annually), social and legal problems, acts of violence, and accidents.

Profound medical sequelae				
Fibrosis	cirrhosis	neurologic damage	carcinogenic	**fetal alcohol syndrome**

Fetal alcohol syndrome

which is characterized by growth deficiency, distinctive abnormal facial features, microencephaly and mental retardation, and attention and behavioral problems.

Many alcohol-damaged children who have nonspecific symptoms of intellectual impairment and behavioral deficits.



HOW ?

Many method can be used to screen for alcohol misuse :

1- A single-question alcohol use screen (more sensitive ,less specific)

2- Alcohol Use Disorders Identification Test–Consumption (AUDIT-C)

3- The CAGE Questionnaire

others:

- Alcohol odor
- Lab LFT,GGT
- Slurred speech

Have you ever felt you should cut down on your drinking?

__Yes
__No

Have people annoyed you by criticizing your drinking?

__Yes
__No

Have you ever felt bad or guilty about your drinking?

__Yes
__No

Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover (eye-opener)?

__Yes
__No

Need 2 for men 1 for women

Screening for
intimate partner violence

WHO ?

screening **all female** patients of childbearing age for IPV.

WHY ?

is a prevalent worldwide health problem, affecting women more commonly than men.

In addition to physical injury and death, IPV causes significant physical and psychiatric health problems commonly treated by family physicians

WHEN ?

whether it be part of screening at a wellness visit or in response to specific physical or mental health issues

HOW ?

A: TALKING TO PATIENTS

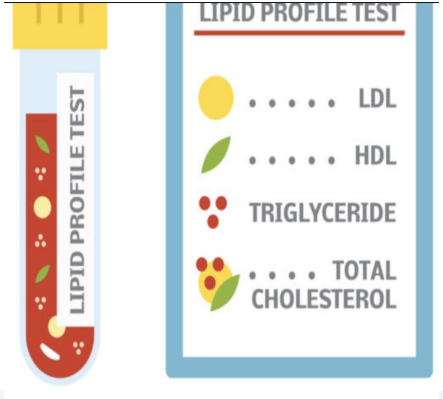
The assessment of the risk of immediate harm should include the following questions (if patients answer “yes” to at least **three** of these questions, they are at high risk of harm or injury

- Has the physical violence increased over the past six months?
- Has your partner used a weapon or threatened you with a weapon?
- Do you believe your partner is capable of killing you?
- Have you been beaten while pregnant?
- Is your partner violently and constantly jealous of you?

B : Several screening instruments

- Hurt, Insult, Threaten, Scream (HITS)
- Ongoing Abuse Screen/Ongoing Violence Assessment Tool (OAS/OVAT)
- Slapped, Threatened, and Throw (STaT)
- Humiliation, Afraid, Rape, Kick (HARK)
- Modified Childhood Trauma Questionnaire–Short Form (CTQ-SF)
- Woman Abuse Screen Tool (WAST)

Screening for
Dyslipidemia



WHO ?

Screening women at increased risk:

- Screening women at increased risk: The USPSTF strongly recommends screening women 45 years and older for lipid disorders if they are at increased risk of CHD. A recommendation.
- The USPSTF recommends screening women 20 to 45 years of age for lipid disorders if they are at increased risk of CHD. B recommendation.

Screening young men and all women not at increased risk:

The USPSTF makes no recommendation for or against routine screening for lipid disorders in men 20 to 35 years of age, or in women 20 years and older who are not at increased risk of CHD. C recommendation.

WHY ?

There is good evidence that high levels of total cholesterol & LDL cholesterol, and low levels of HDL cholesterol are

Important risk factors for CHD.

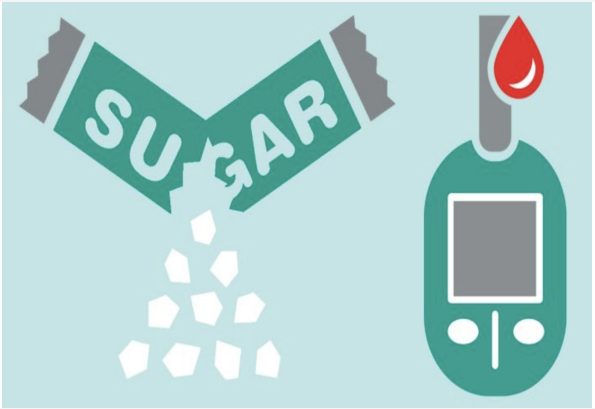
WHEN ?

- The optimal interval for screening is **uncertain**. On the basis of other guidelines and expert opinion, reasonable options include **every five years**
- An age to stop screening has **not** been established.
- Screening may be appropriate in older women who have never been screened

HOW ?

The preferred screening tests for dyslipidemia are total cholesterol and HDL cholesterol levels on non fasting or fasting samples

Screening for Diabetes



WHO ?

American Association of Clinical Endocrinologists : Screen asymptomatic individuals if risk factors present:

- acanthosis nigricans
- Age ≥ 45 years
- Antipsychotic therapy for schizophrenia and/or severe bipolar disease
- Cardiovascular disease or FH type 2 DM
- Chronic glucocorticoid exposure
- HDL cholesterol level < 35 mg per dL (0.91 mmol per L) and/or a triglyceride level > 250 mg per dL (2.8 mmol per L)
- Hx of gestational diabetes mellitus or delivery of a baby weighing > 9 lb (4.1 kg)
- Hypertension (blood pressure > 140/90 mm Hg or taking medication for hypertension)
- Impaired glucose tolerance, impaired fasting glucose, and/or metabolic syndrome
- Member of an at-risk racial or ethnic group: Asian, black, Hispanic, Native American (Alaska Native or American Indian), or Pacific Islander
- Nonalcoholic fatty liver disease
- Overweight or obese
- Polycystic ovary syndrome
- Sedentary lifestyle

WHO ?

American Diabetes Association ：Screen asymptomatic adults with a body mass index ≥ 25 kg per m2, and one or more additional risk factors

- A1C > 5.7%, impaired glucose tolerance, or impaired fasting glucose on previous testing
- Acanthosis nigricans
- Cardiovascular disease
- First-degree relative with type 2 diabetes
- HDL cholesterol level < 35 mg per dL and/or a triglyceride level > 250 mg per dL
- High-risk ethnicity: black, Native American/Alaska Native, Hispanic/Latino, Asian American, and Native Hawaiian/Pacific Islander
- Hypertension (blood pressure > 140/90 mm Hg or taking medication for hypertension)
- physical inactivity
- Polycystic ovary syndrome
- Women who had gestational diabetes or who delivered a baby weighing > 9 lb
- In persons without risk factors, testing should begin at 45 years of age
- If test results are normal, repeat testing should be performed at least every three years

Canadian Task Force on Preventive Health Care

- Screening is **not recommended** for adults at low to moderate risk of diabetes (risk determined with a validated risk calculator
- For adults at high risk of diabetes, routine **screening every three to five years with A1C**
- For adults at very high risk of diabetes, **routine screening annually with A1C**

WHY ?

- **Uncontrolled diabetes can lead to** blindness, limb amputation, kidney failure, vascular disease, and heart disease

- **In pregnant women :** hyperglycemia increases risk of congenital malformations and intrauterine fetal death

- **The goal of screening is** to reduce maternal and fetal complications such as preeclampsia, cesarean delivery, congenital malformations, macrosomia (and later childhood/adolescent overweight), shoulder dystocia, nerve palsy, bone fracture, jaundice, and infant death.

How ?

- **Fasting plasma glucose**
- **HBA1C**
- **Retinal exam**
- **For GDM :** 50-g oral glucose challenge test, administered between 24 and 28 weeks of gestation in a nonfasting state

WHEN ?

SCREENING INTERVALS

Evidence on the optimal rescreening interval for adults with an initial normal glucose test result is limited

Screening for

Blood pressure

WHO ? Adults aged ≥ 18 years without known hypertension

Pregnant women without a known diagnosis of preeclampsia or hypertension

Risk assessment

General risk groups	• high-normal blood pressure (130–139/85–89 mm Hg) • overweight or obese • African Americans.
Pregnancy & postpartum	• **Hx of eclampsia or preeclampsia** • **Previous adverse pregnancy outcome** • **maternal comorbid conditions** (type 1 or 2 diabetes, gestational diabetes, chronic hypertension, renal disease, and autoimmune diseases), • **multifetal gestation.** • **Other risk factors include** nulliparity, obesity, African American race, low socioeconomic status, and advanced maternal age.

WHY ?

It is a prevalent condition, around 30% of adult population in SA
Most commonly diagnosed condition at outpatient office visit
Contributing factor for :

- Heart failure
- Heart attack
- Stroke
- Chronic kidney diseases
- And death !

HOW?

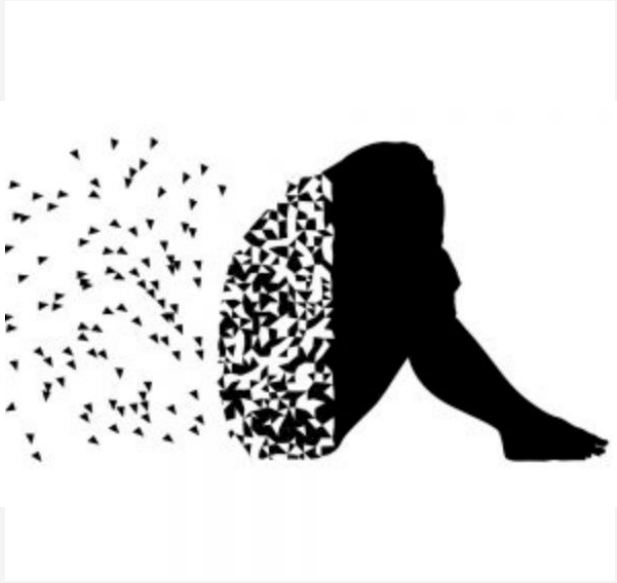
Office measurement of blood pressure is done with a **manual or automated sphygmomanometer.**

Evidence **does not support** point-of-care urine testing to screen for preeclampsia, as evidence suggests that proteinuria alone may not be a good predictor of preeclampsia health outcomes

WHEN ?

• **Adult aged 40 years or older** • **Women with increased risk for high blood pressure**	annual screening
• **Adults aged 18-39 with normal blood pressure (>130/85 mm Hg) who do not have other risk factor**	Every 3 to 5 years
• **Pregnant women**	each prenatal care visit throughout pregnancy.

Screening for Depression



WHO ?

Adults aged ≥ 18 years , pregnant women , post-partum period

Considering Risk factors :

General risk groups	elderly :	pregnancy &postpartum
• Young & middle age women • undereducated • Previously married • Unemployed • Chronic illness • Mental disorder ,FH of psychiatric disorders	• disability • poor health status related to medical illness • Chronic sleep disturbance • Loneliness • history of depression.	• poor self-esteem • childcare stress • prenatal anxiety and life stress • decreased social support • history of depression & previous postpartum depression • lower socioeconomic status, • unintended pregnancy.

WHY ?

- Depression is among the leading causes of disability in persons 15 years and older.
- Depression is also common in postpartum and pregnant women and affects not only the woman but her child as well
- Leading cause of suicide if left untreated

BENEFITS OF EARLY DETECTION:

Evidence showed that programs combining depression screening with adequate support systems in place **improve clinical outcomes** in adults, including pregnant and postpartum women.

HOW ?

A : History and assessment of patient

B : depression screening instruments include the Patient Health Questionnaire in various forms:

- During the last month, have you often been bothered by feeling down, depressed, or hopeless?
- During the last month, have you often been bothered by having little interest or pleasure in doing things?

´If +ve response to either question, further investigations are required

WHEN ?

There is little evidence regarding the optimal timing for screening. The optimum interval for screening for depression is also unknown

Screening of **chlamydia**, **gonorrhea**, and **syphilis**.

Case scenario

Sarah is 24 years old bank accountant, presented to your primary health care clinic wondering about how to prevent contracting STDs. When asked about her sexual history, Sarah said that she's been sexually active for 1 year with multiple sexual partners without using a protective method, lately she noticed genital skin tags which worried her. She is inquiring about 'pap smearing' and whether she should undergo this test. Sarah is a smoker and she's on OCPs other than that she's medically free.

Facts!

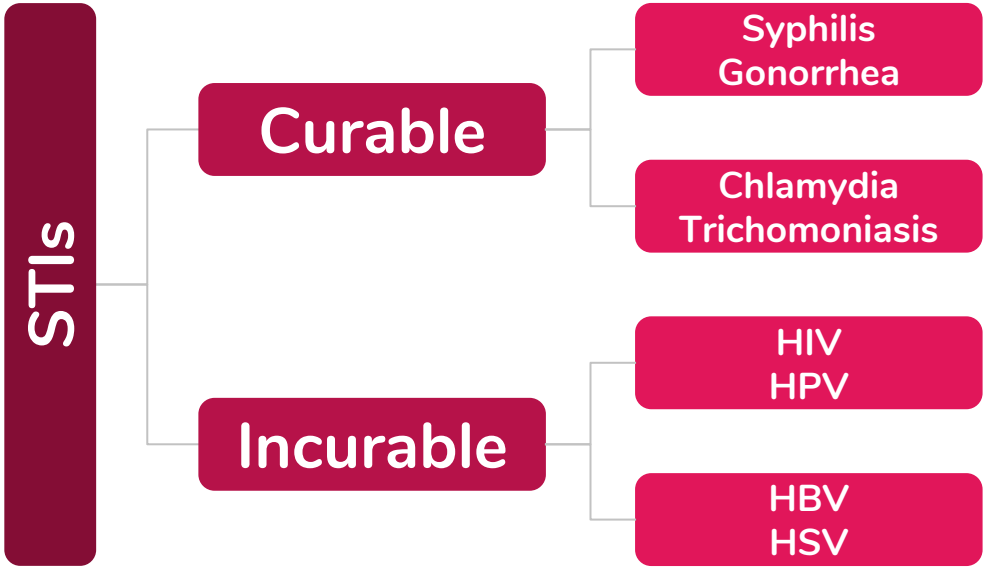
- More than 1 million sexually transmitted infections (STIs) are acquired every day worldwide.
- The majority of STIs (90%) have no symptoms or only mild symptoms that may not be recognized as an STI.
- Women are more likely than men to experience long-term health complications from untreated STIs*.

Saudi statistics

The reported incidence of STIs (2005-2012) was 68,886 cases. *
The incidence of STIs has showed an increase in the last decade (for example HIV cases have almost tripled from 2,917 cases in (1995-1999) to 9,843 cases in (2009-2012).

STI's

Infections that are passed from one person to another through sexual contact. The causes of STDs are bacteria, parasites, yeast, and viruses. There are more than 30 types of STIs.



Who's at risk?

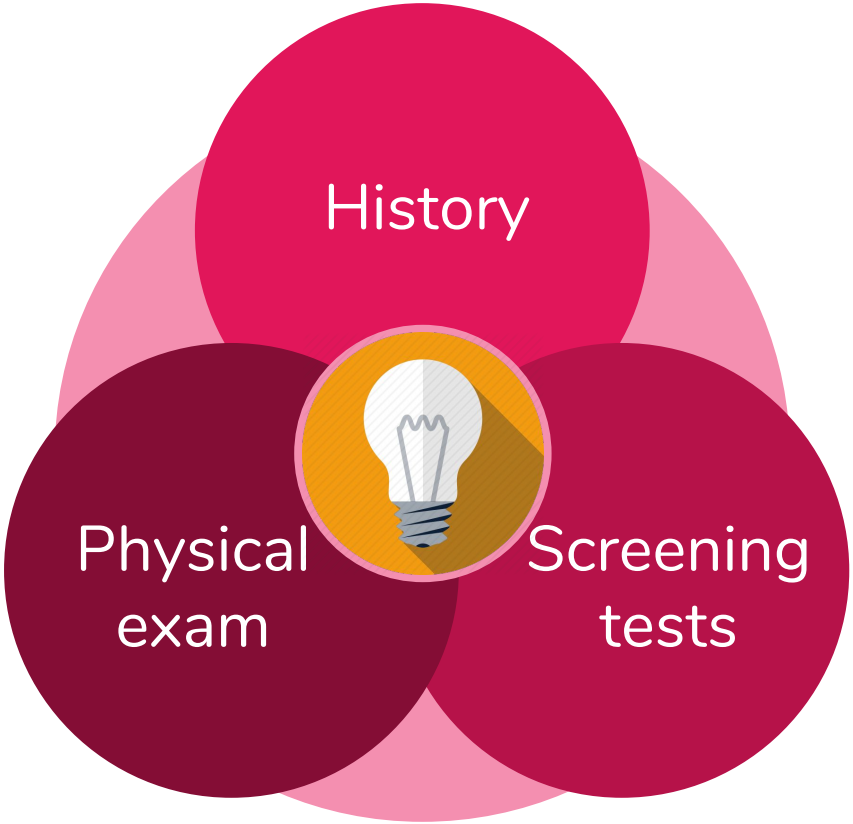
Behavioral factors

- New sex partner in the past 60 days.
- Multiple sex partners OR a partner with multiple sex partners.
- No use of protection.
- Engaging in unsafe sexual practices

Risk groups

- Young age (15-24 years old)
- Men who have sex with men.
- History of domestic violence.
- HIV- positive status.
- Pregnant women.
- Admission to correctional facility
- Drug abuse.

Screening



A) History

Sexual history

- Can I ask you few questions about your sexual history?
- Are you sexually active?
- Are you sexully active with women? Men? Or both?
- Do you or your sexual partner have any concerns?

Presenting history

→ Genital symptoms associated with STIs

- Did you OR you partner lately notice any; discharge, dysuria, abdominal pain, pelvic pain, pain during sex, testicular pain, rashes, genital lesions?

→Systemic symptoms associated with STIs

- Did you lately notice any; fever, weight loss, lymphadenopathy?

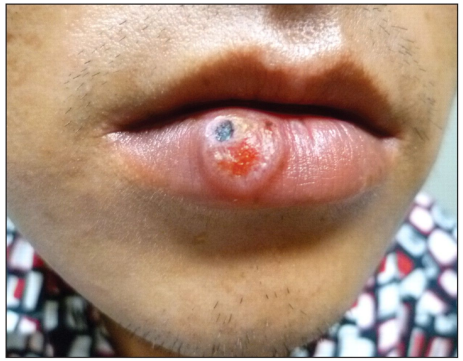
Risk factors

- New sexual partners, multiple sexual partners
- Smoking, use of illicit drugs, alcohol abuse, history of domestic violence
- No use of protection (condoms), sharing towels or underclothing
- Being immunocompromised (DM, on corticosteroids, HIV+)

Past history

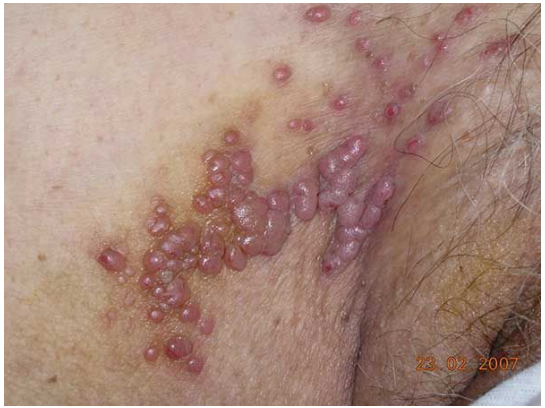
- Do you have any chronic diseases (HBV)? Do you take any medication?
- Have you ever had a previous history of STI or been treated for one?
- Do you use any method of contraception & what is it? When was your LMP?

B) Physical exam



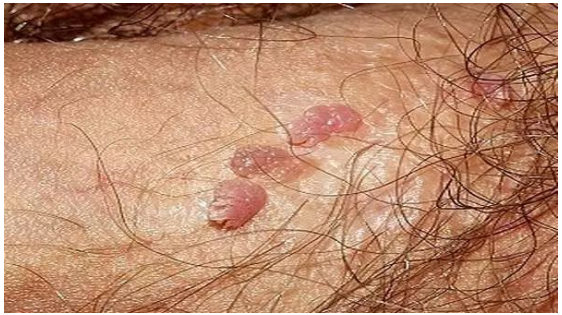
Inspection of:

- Skin surfaces.
- Mouth and throat.
- Lymph nodes-cervical, axillary and inguinal
- Genitals
- Anus & perineum



Examinations:

- Speculum exam
- Bimanual pelvic examination/rectal examination



C) Testing

All adults and adolescents from ages 13 to 64 should be tested at least once for HIV.

Sexually active

NO!

YES!

Younger than 25 years old women OR older with risk factors:

- Annual chlamydia & gonorrhea screening.

Pregnant women:

- All pregnant women should be screened for (Syphilis, HIV & HBV)
- High risk pregnant women should be tested for chlamydia & gonorrhea

Men who have sex with other men:

- Annual testing for syphilis, gonorrhea & chlamydi
- HIV testing every 6 months is advised.

Drug abusers:

- HIV testing at least once a year.

[CDC STD & HIV screening recommendations.]

Screening tests

Infection	Test		Specimen
Chlamydia trachomatis & Neisseria gonorrhoeae	Nucleic acid amplification tests (NAATs)		- Male and female urine - Clinician-collected endocervical swabs - Vaginal swabs - Male urethral specimens
Syphilis	Initial nontreponemal test	Confirmatory treponemal	Blood sample
	-Venereal Disease Research Laboratory [VDRL] or -Rapid plasma reagin [RPR] test)	-Antibody detection test via fluorescent treponemal antibody absorption [FTA-ABS] or -Treponema pallidum particle agglutination [TPPA] test	

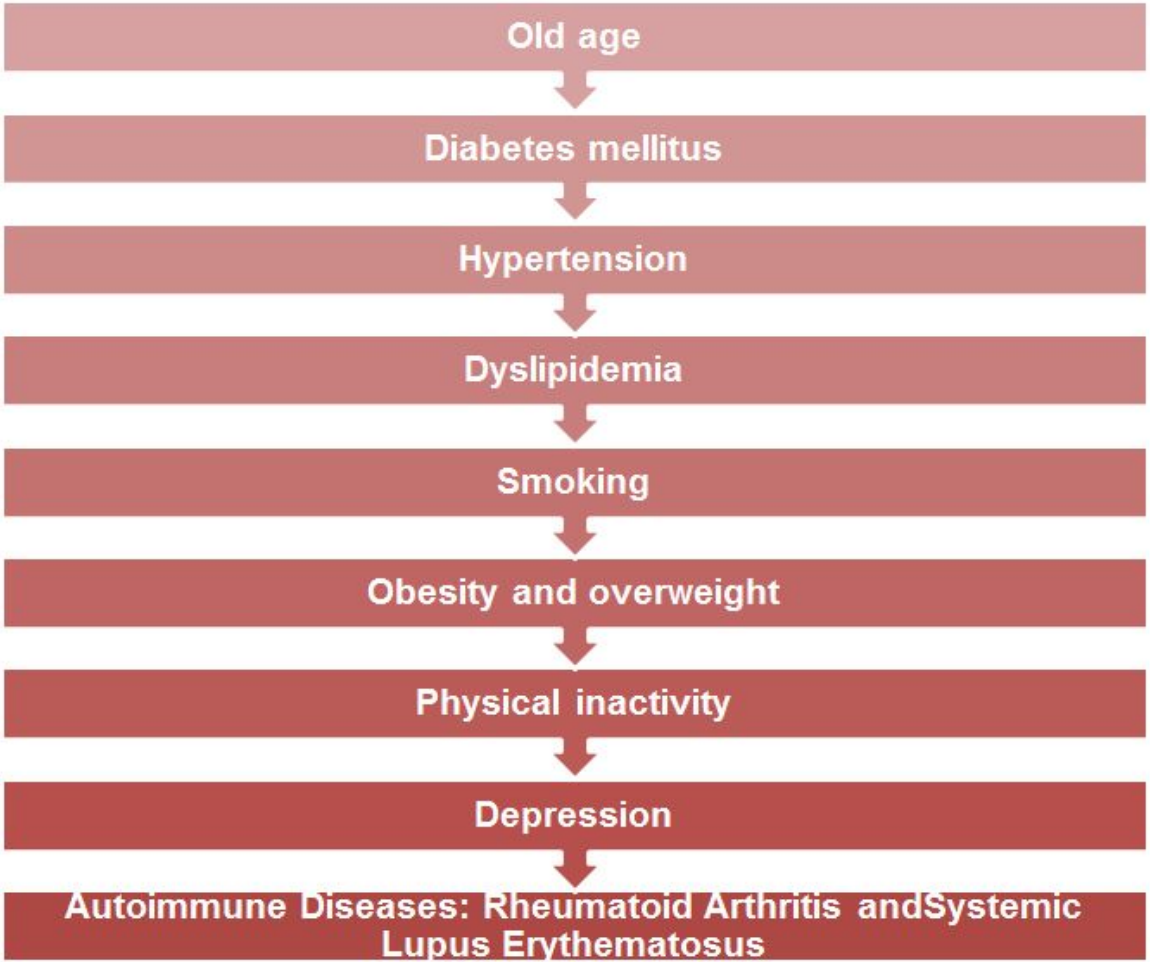
CVD

Use of Aspirin for primary prevention for CVD. **Risks and unique presentations of CVD** in women.

Cardiovascular Disease in Women

Cardiovascular disease is the leading cause of death among women in the United States, accounting for ≈1 of every 3 female deaths.

CVD Risk factors common with men:



Unique Risk Factors CVD for women

Menarche: Early menarche appears to be associated with future CVD risk.
Menopause: Postmenopausal state as a risk factor for CVD
Hysterectomy.
Oral contraceptives
Pregnancy-Related Disorders: preterm delivery, Hypertensive Pregnancy Disorders and Gestational Diabetes Mellitus
Radiation and Chemotherapy for Breast Cancer

Aspirin in primary prevention of CVD

The US Preventive Services Task Force (USPSTF) recommends the use of aspirin for the primary prevention of cardiovascular disease (CVD) when a net benefit is present. A net benefit means that the potential benefit from taking aspirin outweighs the harms, mainly gastrointestinal (GI) bleeding. Specifically,

Aspirin is recommended for women age 55–79 to reduce risk of ischemic stroke when a net benefit is present.

Immunization

Recommended **Immunization** for women

Immunization:

Vaccination plays an important role for the health of the mother as well as the baby. There is a benefit for women to be immunized to reduce their chances of morbidity and mortality from vaccine-preventable diseases.

Immunization for women can be divided into:

- Immunization in the preconception and Interconception Period

- Immunization in the postpartum Period

- Immunization prior to International Travel

Immunization in the preconception and Interconception Period

strongly recommended during pregnancy:

- Seasonal Influenza vaccination:

Influenza virus increase the chances of premature labor and delivery

- Tdap Vaccination:

helps protect newborns from neonatal pertussis (whooping cough).

recommended for women at risk and who do not have a history of immunity:

- Hepatitis A
- Hepatitis B
- Meningococcal
- Pneumococcal
- Human Papillomavirus (HPV): not giving during pregnancy-
- Measles, Mumps and Rubella (MMR) -avoid pregnancy for four weeks-
- Varicella -avoid pregnancy for four weeks-

Immunization in the postpartum Period

postpartum women should receive all recommended vaccines that could not be or were not administered during pregnancy such as:

- MMR
- Varicella
- Tetanus toxoid
- Diphtheria
- Acellular pertussis

Immunization prior to International travel

Pregnant women planning to travel to endemic areas where there is a high risk of exposure may need the following vaccines:

- Anthrax
- BCG
- Japanese Encephalitis
- Rabies
- Typhoid
- Yellow Fever

Counseling

Might come in OSCE

Counselling

Counselling is providing help & empowerment to the patient to manage their problems more effectively and develop unused or underused opportunities for better coping.

Remember when counselling (key skills):

- Listen actively.
- Accept patient as they are, don't be judgemental.
- Show empathy.
- Be knowledgeable
- Be patient.

Steps of counselling

- **G** Greet client in a friendly, helpful, and respectful manner.
- **A** Ask client about needs, concerns, and previous use.
- **T** Tell client about different options and methods.
- **H** Help client to make decision about choice of method s/he prefers.
- **E** Explain to client how to use the method.
- **R** Return: Schedule and carry out return visit and follow-up of client

Counseling of high-risk sexually active women to reduce the risk of sexually transmitted infections.

Counselling

Sarah is 24 years old bank accountant, presented to your primary health care clinic wondering about how to prevent contracting STDs. When asked about her sexual history, Sarah said that she's been sexually active for 1 year with multiple sexual partners without using a protective method, lately she noticed genital skin tags which worried her. She is inquiring about 'pap smearing' and whether she should undergo this test. Sarah is a smoker and she's on OCPs other than that she's medically free.

G	Greet the patient in a friendly, helpful and respective manner. Obtain personal information (name, age..)
A	Ask her the following -Why are you here today? -What are you concerned about? -Have you tried anything before for this matter? -Obtain a complete medical history.
T	Tell the patient about available options to decrease her risk of STIs & their complications: 1. Sexual barriers (male or female condoms)*. 2. Adapting more hygienic habits (washing before and after intercourse, no sharing of towels). 3. Screening tests for STIs like, gonorrhea, chlamydia & syphilis. 4. HPV vaccination. 5. Pap smear (now and every 3 years)
H	Help her the patient to understand the rationale behind each method to eventually reach a decision that serves her needs.
E	Explain to the patient how and when (the process) of the preferred methods.
R	Return the patient for follow up.

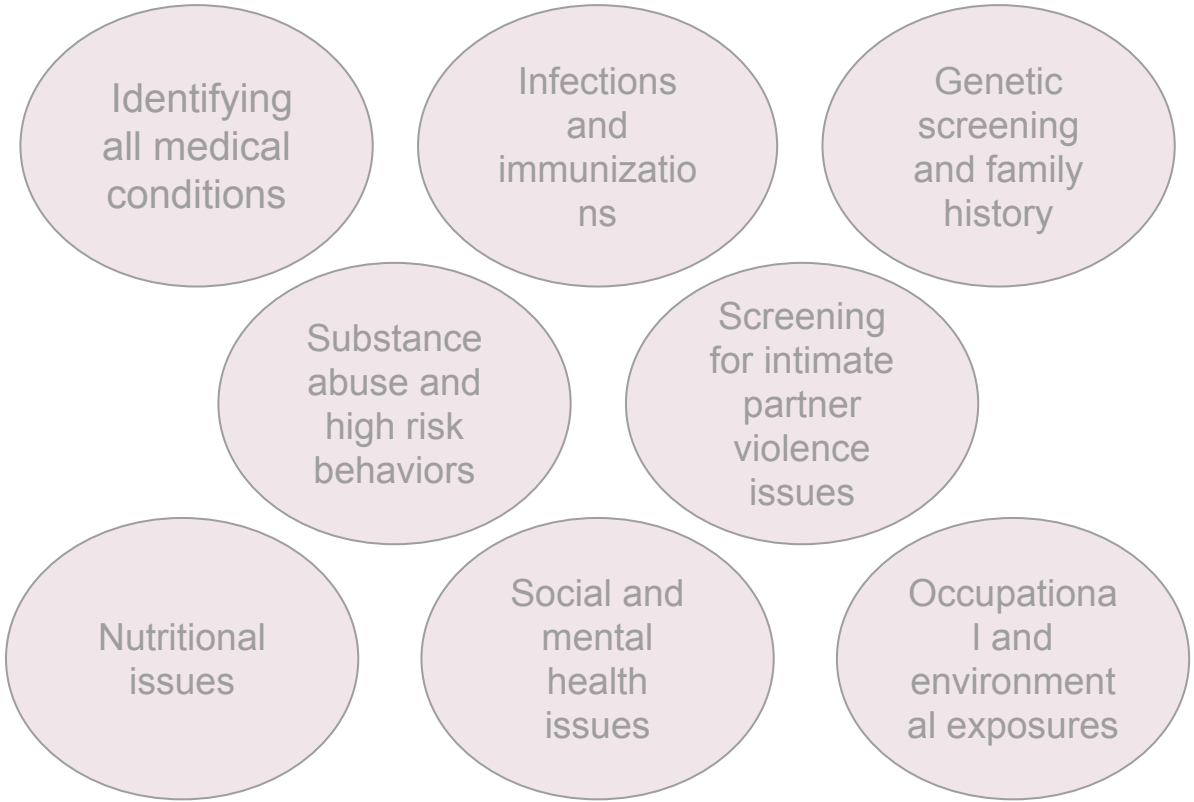
Role Play

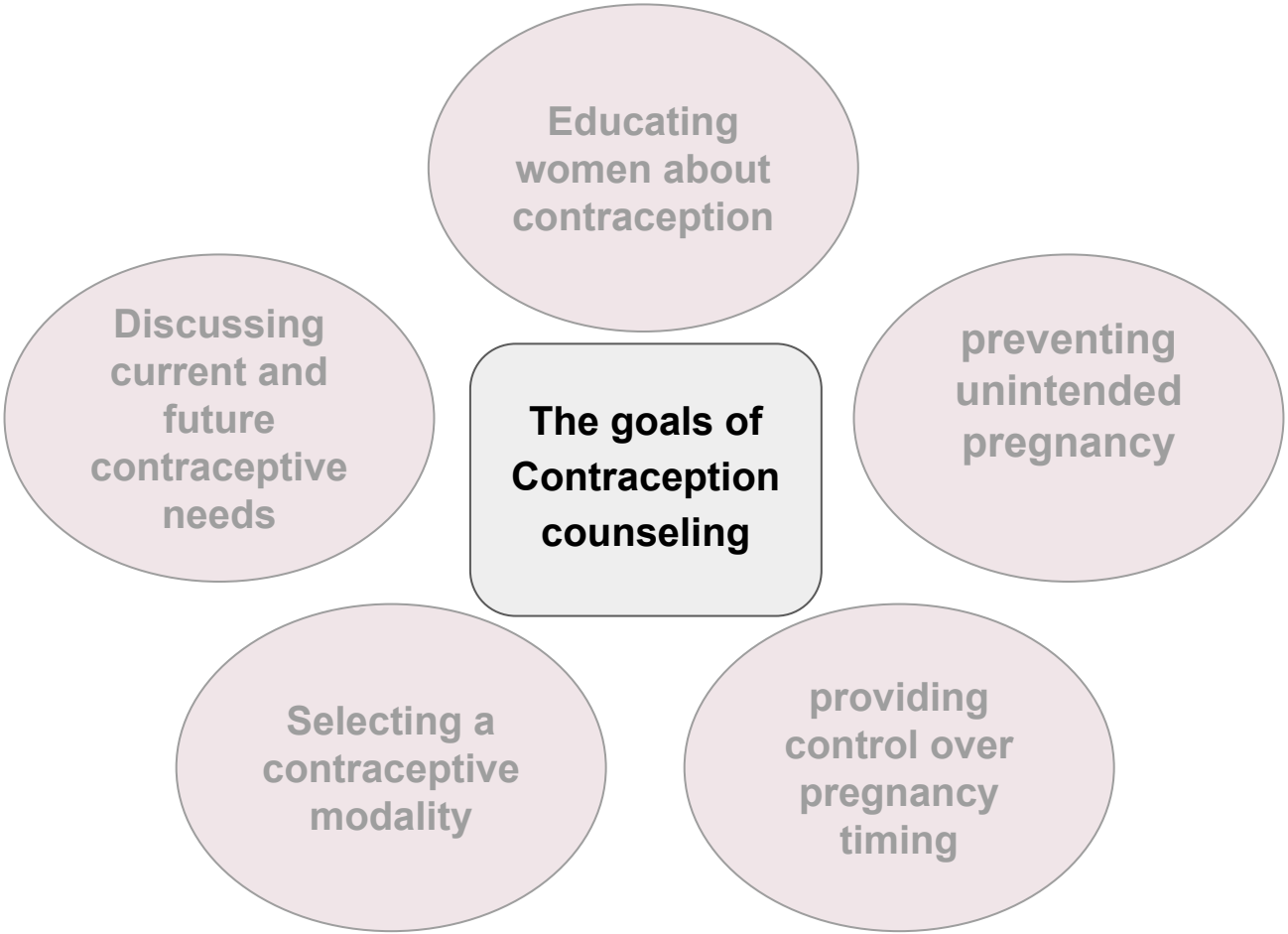
Preconception and contraception counseling of premenopausal women

The goal of Preconception counseling

The goal is to optimize a woman’s health and knowledge before planning and conceiving a pregnancy in order to eliminate, or reduce, the risk associated with pregnancy for the woman and her future baby.

major topics that should be discussed with any woman prior to conception




Educating women about contraception
Discussing current and future contraceptive needs
The goals of Contraception counseling
preventing unintended pregnancy
Selecting a contraceptive modality
providing control over pregnancy timing

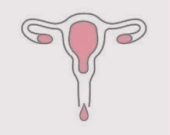
Contraception methods

Factors affecting the decision of using contraception methods

cost

Medical history

Bleeding pattern



Availability

Side effects

Partner participation

Role Play

Counseling for **menopause**.

Why do menopausal women seek counselling?

1. Many women will spend one third of their lifetime after menopause.

2. Management of associated symptoms
   Example: vaginal dryness or hot flushes.

3. Assistance in the prevention of associated long-term health problems
   Example: CAD or osteoporosis.

Role Play

Objectives to be covered:

- **To show counselling & communication skills.**
  - Addressing women's questions and concerns.
  - Providing patient education.
  - Facilitating informed decision making.
  - Enhancing patient's confidence in the decision making the ability to modify it over time.
  - Providing Personalized Menopause Counseling.
- **To establish a diagnosis of menopause or perimenopause.**
- **To counsel the patient regarding the menopausal transition**
- **To acknowledge menopausal signs & symptoms and strategies to relieve them.**
  - Vasomotor symptoms: hot flashes, day & night sweats.
  - Sleep disturbances: insomnia.
  - Genitourinary changes: menstrual cycle, urogenital atrophy & dryness, urinary incontinence.
  - Psychological: depression, mood changes, irritability.
  - Sexual dysfunction: libido, dyspareunia.
- **To acknowledge menopausal health risks, risk factors and prevention methods.**
  - Osteoporosis.
  - Cardiovascular disease & stroke.
  - Dementia & Alzheimer.
  - Cancers.
  - ARMD.
- **To discuss management options and their short-term & long-term effect.**
  - Management with the patient at subsequent visits, as new research is published and the woman’s health status and preferences may change over time.

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Thank you

Questions?