Women’s Health Jeopardy

- The goals are to provide an overview of common WH issues.
Rules to the Game

- Chose a category and chose how much to wager.
- From the time the case is read you have 20 seconds to formulate an answer in the form of a question.
- To win, you must say the complete correct answer — NO HELP...shhhh audience!
- If you need help, you may ask for a lifeline from a member of the audience, BUT you forfeit the reward.
- If you guess incorrectly I will tell you to pick another contestant.

<table>
<thead>
<tr>
<th>I got my Eye on that STI</th>
<th>What's in my mouth?</th>
<th>Yikes, that lesion looks bad!</th>
<th>What does the USPSTF say?</th>
<th>Oh, those hormones</th>
<th>I'm not sure what that is</th>
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What is Syphilis

A year 30 old female presents with a history of “painful sore” on the roof of her mouth. She reported no recent trauma, blistering or burning. However, she did admit to a highly promiscuous sex life; Recent HIV, 4 weeks ago – negative. PE: 1-cm indurated, ulcer on the hard palate; the ulcer had rolled boarders & a shallow, pinkish base. Tender lymph nodes found on the left anterior cervical chain.

Etiology: Caused by Treponema pallidum; spread through intimate skin-to-skin contact, most common through sexual intercourse; disease can be spread oral-genital or mouth-to-mouth contact. Usually painless chancre at site of inoculation within 3-6 weeks following infection and primary lesion resolves within 6-8 weeks.

Diagnosis: Definitive w/ oral pathology is serology (VDRL or RPR confirmed by FTA). Dark-field microscopy may give a false-positive test by detecting spirochetes of the normal oral flora.

Treatment: Single intramuscular (IM) injection of 2.4 million units of long-acting benzathine penicillin G.

What is a Gonococcal Infection?

A female patient presents with a “rash” and “itchyness” her genital area. On examination, you notice slight labial erythema with copious vaginal discharge. On culture, gram-negative, kidney bean shaped diplococci are noted. What is your diagnosis?

Etiology: Neisseria gonorrhoeae is a gram-negative, kidney bean shaped diplococcus.

Asymptomatic infection of males is an important factor in transmission. Orogenital contact and anal intercourse also transmit infection.

Diagnosis: first-catch urine or collecting swab specimens from the endocervix or vagina. NAATs (Nucleic Acid Amplification Methods) are the most sensitive tests for these specimens.

Treatment: Ceftriaxone 250 mg IM in a single dose PLUS Azithromycin 1g orally in a single dose (co treatment for Chlamydial Infection)
What is a Chlamydial Infection?

A 24 year old female presents to your office and states her boyfriend was diagnosed with an STI and given a big pill to take. She denies any symptoms. On physical exam you see the following…. What is the most likely diagnosis?

**Etiology:** Typically caused by *C. trachomatis*. Prevalence is highest age ≤24 years. Mucopurulent discharge from cervix in females. Acute onset of dysuria, frequency and pyuria with sterile bladder urine. 80% females show no symptoms.

**Diagnosis:** first-catch urine or collecting swab specimens from the endocervix or vagina. NAATs (Nucleic Acid Amplification Methods) are the most sensitive tests for these specimens.

**Treatment:** Azithromycin 1 g orally in a single dose OR Doxycycline 100 mg orally twice a day for 7 days. Partners need to be treated.

**Complications can include PID, ectopic pregnancy, and infertility.**

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What is Lymphogranuloma Venereum (LGV)?

A 35 year old female presents with diarrhea and right sided inguinal adenopathy for 3 days in duration. She denies any other symptoms. On exam, painless lesions are noted around her groin. You suspect she has a STI. After testing, you r/o IBD, HIV, herpes, syphilis, chancroid, GC, and Chlamydia. Based on the results of your lab tests and the clinical findings, what do you expect she may have?

**Etiology:** LGV is caused by *C. trachomatis* serovars L1, L2, or L3. Most common clinical manifestation of LGV among heterosexuals is tender inguinal and/or femoral lymphadenopathy that is typically unilateral. A self-limited genital ulcer or papule sometimes occurs at the site of inoculation. If seen in men- can mimic proctocolitis.

**Diagnosis:** Usually of exclusion. Culture can be taken.

**Treatment:** Doxycycline 100 mg orally twice a day for 21 days. Check for other STIs, partners should be treated.
What is a Giant Pyogenic Granuloma?

Etiology: Common, tumor-like, exuberant tissue response to localized irritation or trauma - not associated with pus & does not represent a granuloma histologically. It is a reactive inflammatory process.
- F>M: during puberty, pregnancy, and menopause.
- Occurs in individuals with poor hygiene and chronic oral irritants - overhanging restorations, calculus.

Diagnosis: Clinical and from history of symptoms.

Treatment: Surgical excision (high rate of reoccurrence during pregnancy). Additionally, remove the irritating surface.

What is ages 50 to 74 years?

50-74 is Grade B
The decision to start screening mammography in women prior to age 50 years should be an individual decision. Women who place a higher value on the potential benefit than the potential harms may choose to begin biennial screening between the ages of 40 and 49 years. (GRADE C)
For women who are at average risk for breast cancer, most of the benefit of mammography results from biennial screening during ages 50 -74 years.
Of all of the age groups, women aged 60 to 69 years are most likely to avoid breast cancer death through mammography screening.
What is age 21?

The USPSTF recommends screening for cervical cancer in women starting at what age?

Recommendations include screening women age 21 to 65 years with cytology (Pap smear) every 3 years or,

For women age 30 to 65 years who want to lengthen the screening interval, screening with a combination of cytology and human papillomavirus (HPV) testing every 5 years (GRADE B)

GRADE D
Women younger than 30 years, HPV testing
Women younger than 21
Women Older than 65, who have had adequate prior screening

What is age 65?

The USPSTF recommends screening for osteoporosis in women starting at age…..

The USPSTF recommends screening for osteoporosis in women aged 65 years and older and in younger women whose fracture risk is equal to or greater than that of a 65-year-old white woman who has no additional risk factors

GRADE B.
What is age 50?

The USPSTF recommends screening for colorectal cancer starting at age 50 years and continuing until age 75 years. **GRADE B**

The decision to screen for colorectal cancer in adults aged 76 to 85 years should be an individual one, taking into account the patient’s overall health and prior screening history.

Adults in this age group who have never been screened for colorectal cancer are more likely to benefit. Screening would be most appropriate among adults (76 to 85 years) who 1) are healthy enough to undergo treatment if colorectal cancer is detected and 2) do not have comorbid conditions that would significantly limit their life expectancy. **GRADE C**

What is Luteinizing Hormone?

LH is a hormone produced by gonadotrophic cells in the anterior pituitary gland.

An acute rise of LH (“LH surge”) triggers ovulation and development of the corpus luteum.

Regulated by gonadotropin-releasing hormone (GnRH).

Levels normally low during childhood, high after menopause.

Secreted as pulses, it is necessary to follow its concentration over a sufficient period of time to get proper information about its blood level.

During the reproductive years, typical levels are between 1–20 IU/L. Physiologic high LH levels are seen during the LH surge; typically they last 48 hours.
**What is Progesterone?**

The corpus luteum’s sole function is to produce this hormone:

Progesterone converts the endometrium to its secretory stage to prepare the uterus for implantation.

If pregnancy does not occur, progesterone levels will decrease, leading to menstruation.

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**What is TSH?**

This hormone is responsible for the controlling the only endocrine gland that can be palpated on the physical examination:

Thyroid Stimulating Hormone (TSH) aka Thyrotropin is produced in the anterior pituitary and helps to regulate the thyroid gland.

The thyroid gland, palpable in the anterior neck, produces thyroxine (T4), triiodothyronine (T3), and calcitonin.

T3 and T4 maintain tissue metabolism at an optimal level. Thyroid hormones are under negative feedback control.

Initial diagnosis of altered thyroid function can be done by comparing the levels of TSH and free T4 and free t3. Low thyroid function might be due to primary thyroid disorders (↑ TSH / ↓free T4) or secondary thyroid disorders (↓ TSH / ↓free T4), among other conditions.
What is Oxytocin?

The milk let down reflex which occurs during breastfeeding is under the control of this hormone:

Oxytocin is produced in the hypothalamus and released from the posterior pituitary gland.

A positive feedback loop sustains its release: when the baby sucks at the breast, oxytocin is secreted and causes the milk to be let down into the breast. It also stimulates the brain to release more oxytocin, thus maintaining milk flow.

Oxytocin also stimulates the uterine muscles to contract during childbirth. Synthetic oxytocin, “pitocin” may be given to women to induce labor.

What is a Fibroid?

A 40 year old female presents with heavy bleeding, bleeding between menses, and painful menses. On ultrasound you see the following:

Etiology: Factors that initiate leiomyomas unknown. Risk factors include increasing age, ethnicity (African-American women 2 – 3x), nulliparity, and family history.
Diagnosis: Pelvic exam: firm, irregularly enlarged uterus and usually nontender. Ultrasound used for diagnosis.
Treatment: Depends on fertility plans. Myomectomy, ablation, or Hysterectomy.
### What is a Molar Pregnancy?

A 36 year old, G2 P1 presents with nausea, vomiting and vaginal bleeding. Her last period was 8 weeks ago although her uterine size is much larger than what is expected. The following is seen on ultrasound:

**Etiology:** Incidence of complete or partial mole is 1/1200 pregnancies in US. 15-20% of complete moles and 2-3% of partial moles can become malignant. Risk factors: Oral contraceptive use, previous spontaneous abortion, women > age 35 and < age 15 and previous molar pregnancy.

**Diagnosis:** Vaginal bleeding with passage of villi, excessive nausea and vomiting from elevated HCG, theca Lutein cysts - greater than 6 cm in diameter w/ ovarian enlargement (develop b/c of high HCG levels), “Snowstorm pattern” on ultrasound: complex, echogenic masses with cystic spaces in uterus; no fetus.

**Treatment:** Evacuation with dilation and curettage, hysterectomy if childbearing complete, baseline hCG titers, then q1-2 weeks until negative-- Monthly hCG titers for six negative months. CXR for mets or embolized trophoblastic tissue.

### What is Polycystic Ovarian Syndrome?

Patient is a 25 year old female with type II DM x 2 years now controlled. Patient has been obese most of her life with BMIs around 35 to 39 in the last 5 years. Physical exam: Pustular, papular and cystic acne on face and back, some hair thinning, hyperpigmented areas in the neck and axillae and thick facial hair. Ultrasound demonstrates the following:

**Etiology:** Affects 5% to 10% of women of reproductive age --- infertile women rate is 15% to 20%. Although hyperandrogenism and infertility are distressing to young women, its metabolic sequelae eventually plague the individual in terms of morbidity and mortality.

**Diagnosis:** Difficult because there is no one single test for dx. Diagnosis usually made by a combination of the following: Chronic Oligo-anovulation, Clinical signs of androgen excess: hirsutism, acne, alopecia, infertility, virilization, Exclusion of other causes of androgen excess, U/S: Polycystic ovary 10 to 12 or more follicles in each ovary measuring 3-9 mm in diameter and/or increased ovarian volume (>10ml). May also have Insulin resistance, onset at puberty, elevated LH:FSH ratio (>2.5-3) and testosterone maybe elevated.

**Treatment:** Multifactorial- weight control, treatment of diabetes (if applicable), screening for comorbid illness, infertility treatment, etc.