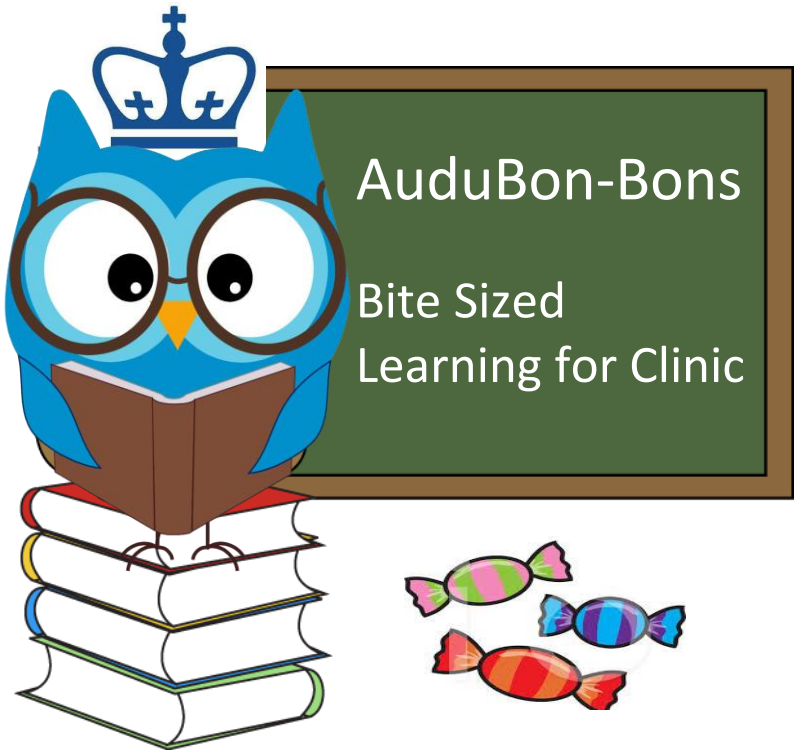
PRECONCEPTION COUNSELING



Week 28

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Reading Assignment:
ACOG Committee Opinion #762
Prepregnancy counseling

LEARNING OBJECTIVES

- To discuss an overview of preconception counseling
- To identify key aspects of a patient's history that will lead to catered testing prior to conception
- To understand how to assist in optimizing a patient's pregnancy

CASE VIGNETTE

- Ms. Dulce Buho is a 36 y.o. G2P0020 presenting to your office stating she desires to become pregnant in the next few months. She would like to know what she can do to optimize her pregnancy.

GOALS OF PRECONCEPTION COUNSELING

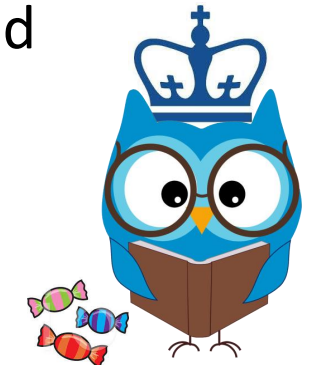
Reduce the risk of adverse health effects for the women, fetus and neonate

- Optimize health
- Address modifiable risk factors
- Provide education about healthy pregnancy

FOCUSED HISTORY

What elements of the patient's history are most important?

- **OBHx:** 1st trimester VTOP at 18 y.o., 1st trimester sab 2 years ago
- **GYNHx:** Regular menses, q month, lasting 4-5 days, denies h/o abnormal pap smears, STIs, fibroids, cysts
- **PMHx:** DM2, HTN, sickle cell trait
- **PSHx:** D&C for VTOP
- **Meds:** Metformin, Lisinopril, topical retinol cream at night
- **Allergies:** NKDA
- **SocHx:** Denies use of tobacco and illicit drugs, + social ETOH, married and lives with husband in apartment, denies IPV, exercises regularly
- **FamHx:** Denies significant genetic history



PERTINENT PHYSICAL EXAM FINDINGS

What elements of the patient's physical exam are most important?

- **Vital signs:** BP 128/72, HR 83
- **BMI:** 27

HEALTH SCREENING FOR WOMEN OF REPRODUCTIVE AGE

Reproductive awareness

- Pregnancy prevention counseling
- Prepregnancy and nutrition counseling

Medical diseases

- DM, HTN, epilepsy, etc

Infectious diseases

- STIs including HIV
- Hep A
- Hep B, Rubella, Varicella

Teratogens and genetics

EVALUATION AND MANAGEMENT

Immunizations

- Status assessed annually
- Ideally, administer before pregnancy

- No evidence of adverse fetal effects from vaccinating pregnant women with *inactivated virus, bacterial vaccines, toxoids*
  - Influenza annually
  - Tdap
  - Hepatitis A and B, Meningococcus, Pneumococcus, HPV
- *Live vaccines*
  - MMRV
  - Theoretical risk for fetus
  - MMR: should avoid pregnancy for at least 1 month after vaccination
  - Varicella: two dose vaccine, q month

EVALUATION AND MANAGEMENT

Infectious diseases

- STIs: HIV, GCCT, RPR
- TB
- Toxoplasmosis
- Zika virus

EVALUATION AND MANAGEMENT

- **Carrier screening**
  - All women who present for pre-pregnancy counseling should be offered screening for the same genetic conditions as recommended for pregnant women
  - All women: CF, SMA, FX
  - Those at risk for thalassemia or sickle cell disease: hemoglobin electrophoresis
  - Ashkenazi Jewish descent: expanded carrier screening
- **Folic acid supplementation**
- **Management of preexisting medical conditions**

Table 1. Major Medical Conditions That Affect Pregnancy

Condition	Associated Risks	Treatment	Goals
Pregestational diabetes mellitus	Congenital anomalies and pregnancy-related complications	The importance of euglycemic control before and during pregnancy should be emphasized. Optimal weight management also should be discussed in the context of managing blood sugars. Consideration should be given to testing for underlying vasculopathy with retinal examination, 24-hour urine protein testing, and electrocardiography. Thyroid dysfunction is common in women with pregestational diabetes; therefore, screening for thyroid function should be performed.	HbA_{1c} <6.5% (48 mmol/mol), to reduce the risk of congenital anomalies*
Chronic hypertension	Preeclampsia and intrauterine growth restriction	Assessment of the teratogenic risk of hypertensive medications should be performed. Angiotensin converting enzyme inhibitors and angiotensin receptor blockers are contraindicated in pregnancy. Consideration should be given to testing for ventricular hypertrophy, retinopathy, and renal disease for women with longstanding or uncontrolled hypertension.†	—
Hypothyroidism (untreated)	Spontaneous abortion, preeclampsia, preterm birth, placental abruption, and fetal death	Screening based on risk factors, rather than universal screening, should be considered for patients who are planning pregnancy.†‡	Treat if thyrotropin (previously thyroid-stimulating hormone) is above the upper level of normal.
Bariatric surgery	A period of rapid weight loss typically occurs in the first 12–24 months postoperatively. During this period, pregnancy is less desirable because of potential effects on fetal growth.	Contraceptive counseling during the postoperative period is important because the risk of oral contraceptive failure in patients who have bariatric surgery with a malabsorptive component is increased. Counseling regarding the benefits of nonoral contraceptive or LARC methods is recommended.§	—
Mood disorders	Impaired maternal infant bonding, risk of maternal self-harm, or neglect. Antidepressants and antipsychotic medications increase anovulation and decrease fecundability.†¶	Women with established depression or anxiety should be counseled regarding the risks of these conditions in pregnancy and the risks and benefits of treatment. The risk of relapse for bipolar disorder is higher in pregnancy, thus women with this condition should establish a strategy for managing relapse while planning for a pregnancy. Women with schizophrenia should receive counseling regarding the risks of the condition on pregnancy and the importance of establishing a plan for managing the condition during pregnancy.	—

Table 1. Major Medical Conditions That Affect Pregnancy (*continued*)

Condition	Associated Risks	Treatment	Goals
Human immunodeficiency virus (HIV)	Vertical transmission	Women with HIV should receive prepregnancy counseling, including a discussion of interventions to reduce vertical transmission, methods for optimizing long-term health, and the few potential effects of antiretroviral medications on the fetus.[#] Antiretroviral therapy should be instituted before pregnancy and continued during pregnancy. Medications should not be discontinued during the first trimester. Women should continue seeing their HIV health care providers. Serodiscordant couples should receive information about the risk of sexual and perinatal transmission and about safer methods for achieving pregnancy.[**] Women at the highest risk of acquiring HIV infection (eg, a woman not infected with HIV with a male sexual partner who is known to be infected with HIV) should be considered candidates for preexposure prophylaxis. The use of daily oral preexposure prophylaxis during pregnancy and lactation for women without HIV with HIV-infected partners has had limited study; however, the drug combination of tenofovir and emtricitabine is commonly used during pregnancy and has a reassuring safety profile.[*†]	Viral load should be undetectable and patients should be co-managed with an HIV health care provider.
Thrombophilia	DVT or PE during pregnancy or in the postpartum period	Consider and plan for thromboprophylaxis during pregnancy.[‡‡]	—
Previous pregnancy complications	Recurrence in future pregnancies	Assess and counsel on risk of recurrence.	—

COUNSELING

- **Inter-pregnancy intervals**
  - Avoid inter-pregnancy intervals shorter than 6 months
  - Optimal inter-pregnancy interval is 18 month – 5 years
- **Timing of intercourse**
  - *Fertile window:* Unprotected sexual intercourse starting 3-4 days before ovulation
  - Unprotected sexual intercourse every 1-2 days
  - Ovulation predictor kits, electronic apps for fertility
- **Timing for referral to fertility specialist**
  - Ovulatory, ≤ 35 y.o., no identifiable risk factor for infertility: no pregnancy within 12 months of unprotected intercourse
  - ≥ 36 y.o.: 6 months
- **Timing of prenatal care**
  - Seek medical care as soon as they believe they are pregnant to aid in correct dating

COUNSELING

- **BMI**
  - Encouraged to try to attain a BMI within normal range before attempting pregnancy
  - Encourage regular physical activity
- **Substance abuse cessation**
- **Nutrition**
  - Caffeine use
  - Avoidance of consumption of fish with high mercury contents
- **Travel**
  - Restrictions to areas with Zika virus

SOCIAL DETERMINANTS OF HEALTH

Socioeconomic inequalities in adverse perinatal outcomes are well documented however women from lower SES are less likely to participate in preconception counseling compared to higher SES groups.

Decreased participation may be contributed to:

- **Limited access to healthcare**
- **Lower health literacy**
- **Preconception counseling awareness**
- **Unintended pregnancies**

As women's health care advocates, we should provide risk assessment and educational and health promotion counseling to all women of childbearing age to reduce reproductive risks and improve pregnancy outcomes whenever feasible.

Epic .phrase

BBonPreconceptionCounseling

Description: Assessment and plan for preconception counseling

- Recommend daily prenatal vitamin with 400mcg of folic acid to decrease risk of NTDs.
- Advised abstaining from tobacco and drugs at this time and alcohol with positive pregnancy test.
- Optimal timing and frequency of intercourse reviewed. We discussed that patient should seek an infertility consultation if she has not conceived within 1 year of regular unprotected intercourse if ≤ 35 years or within 6 months if ≥ 36 years.
- Patient was offered STI screening, which she declines/accepts***.
- No documentation of measles, mumps, rubella or varicella status. Patient agrees/declines*** obtaining titers today.
- Discussed genetic carrier testing (fragile X, SMN1, CF, hemoglobinopathy) and that such tests can be done after conception but that this may limit reproductive options. Fetal testing can be performed for diagnosis if patient and her partner are both found to be carriers for a recessive disease, but pregnancy termination will be the only option at that point to prevent a child with the disease. If patient and her partner are found to be carriers prior to conception, IVF with PGD may be an option and patient and her partner may also elect to forego reproduction. Patient agrees/declines*** this testing at this time.

CODING AND BILLING

- Diagnostic Codes (ICD-10)
  - **Z31.69** Other general counseling and advice on procreative management
  - **Z11.3** Encounter for screening examination for sexually transmitted disease
  - **I10** Essential hypertension
  - **E11.9** Type 2 diabetes mellitus without complications
  - **E66.3** Overweight
  - **D57.3** Sickle-cell trait

CODING AND BILLING – NEW PATIENT

HISTORY	EXAM	MEDICAL DIAGNOSIS MAKING	CODE	APPLICABLE GUIDELINES
Problem focused: - Chief complaint - HPI (1-3)	Problem focused: - 1 body system	Straight forward: - Diagnosis: minimal - Data: minimal - Risk: minimal	99201	- Personally provided - Primary care exception - Physicians at teaching hospitals
Expanded problem focused: - Chief complaint - HPI (1-3) - ROS (1-3)	Expanded problem focused: - Affected areas and others	Straight forward: - Diagnosis: minimal - Data: minimal - Risk: minimal	99202	- Personally provided - Primary care exception - Physicians at teaching hospitals
Comprehensive - Chief complaint - HPI (4) - ROS (2-9) - Past, family, social history (1)	Detailed: - 7 systems	Low: - Diagnosis: limited - Data: limited - Risk: low	99203	- Personally provided - Primary care exception - Physicians at teaching hospitals
Comprehensive - Chief complaint - HPI (4+) - ROS (10+) - Past, family, social history (3)	Comprehensive: - 8 or more systems	Moderate: - Diagnosis: multiple - Data: moderate - Risk: moderate	99204	- Personally provided - Physicians at teaching hospitals
Comprehensive - Chief complaint - HPI (4+) - ROS (10+) - Past, family, social history (3)	Comprehensive: - 8 or more systems	High: - Diagnosis: extended - Data: extended - Risk: high	99205	- Personally provided - Physicians at teaching hospitals

CODING AND BILLING – ESTABLISHED PATIENT

HISTORY	EXAM	MEDICAL DIAGNOSIS MAKING	CODE	APPLICABLE GUIDELINES
Expanded problem focused: - Chief complaint - HPI (1-3)	Problem focused: - 1 body system	Straight forward: - Diagnosis: minimal - Data: minimal - Risk: minimal	99212	- Personally provided - Primary care exception - Physicians at teaching hospitals
Expanded problem focused: - Chief complaint - HPI (1-3) - ROS (1)	Expanded problem focused: - Affected area and others	Low: - Diagnosis: limited - Data: limited - Risk: low	99213	- Personally provided - Primary care exception - Physicians at teaching hospitals
Detailed - Chief complaint - HPI (4+) - ROS (10+) - Past, family, social history (3)	Detailed: - 7 systems	Moderate: - Diagnosis: multiple - Data: moderate - Risk: moderate	99214	- Personally provided - Physicians at teaching hospitals
Comprehensive - Chief complaint - HPI (4+) - ROS (10+) - Past, family, social history (2)	Comprehensive: - 8 or more systems	High: - Diagnosis: extended - Data: extended - Risk: high	99215	- Personally provided - Physicians at teaching hospitals

EVIDENCE

- References
  - ACOGs Clinical Guidelines. http://www.acog.org/Resources-And-Publications/Guidelines-for-Perinatal-Care (Accessed on May 21, 2019).
  - Carrier screening for genetic conditions. Committee Opinion No. 691. American College of Obstetricians and Gynecologists. Obstet Gynecol 2017;129:e41–55
  - Cytomegalovirus, parvovirus B19, varicella zoster, and toxoplasmosis in pregnancy. Practice Bulletin No. 151. American College of Obstetricians and Gynecologists. Obstet Gynecol 2015;125:1510–25.
  - Fransen et al. Preconception counseling for low health literate women: an exploration of determinants in the Netherlands. Reproductive Health 2018;15:192.
  - Hemoglobinopathies in pregnancy. ACOG Practice Bulletin No. 78. American College of Obstetricians and Gynecologists. Obstet Gynecol 2007;109:229–37.
  - Prepregnancy counseling. ACOG Committee Opinion No. 762. American College o Obstetricians and Gynecologists. Obstet Gynecol 2019;133:e78–89.