PREVENTION

Prevention, Case #2

Written by Ragini Miryala, M.D.

A sixteen-year-old girl presents for a routine health care supervision visit. She has had two sexual partners and has used birth control inconsistently. What advice would you give to help prevent a sexually transmitted disease or pregnancy?

Definitions for Specific Terms:

Define the different types of contraception:

Barrier Methods- Condoms, diaphragm, cervical cap, female condom

Hormonal Methods- Oral contraceptive pill or patch, Depo Provera shot, hormonal ring

Chemical Methods- Spermicides

Surgical- Tubal ligation, vasectomy

Devices- Intrauterine device

Abstinence- Intimacy and sexual expression with low risk of disease transmission and/or pregnancy (ie. mutual masturbation, frottage, oral sex)

Define which sexually transmitted infections (STIs) teens are most at risk for contracting?
Gonorrhea, Chlamydia (most common), HIV, Syphilis, HPV

Review of Important Concepts:

Historical Points

- Important Social/Sexual History:
  - Last Menstrual Period
  - Number of partners and sexual practices
  - Forms of contraception used in the past, reasoning behind the decision, and experience with that choice
  - Past STI or pregnancy and outcome
  - Use of drugs or alcohol (puts teens at risk)
  - A helpful mnemonic is the 5 P's of a sexual history: partners, practices, protection against pregnancy, protection against STIs, past history (including history of sexual abuse).
- Obtaining a sexual history is a subject that needs to be approached in a non-judgmental manner while letting the teenager know that unless she is at risk of being hurt or harming others, you can keep the information confidential. (i.e.: "The things we talk about will be private. I will only share this information with others if I'm concerned about your safety or safety of others. I will

always tell you before sharing information if I ever decide it’s necessary so we can decide together how to do it.”)
- The sexual history should be taken with the parent outside of the room. As the physician, you should take the responsibility of asking the parent to step outside and not place the burden on the teenager to do so. An appropriate way to address this with the parent may be to say, “We routinely ask parents to leave the room so that we can speak to teenagers by themselves. This helps them to transition to adulthood by learning to take responsibility for their own health. It also allows us to educate them on topics they may otherwise be embarrassed to address and establish trust with us as their provider.”

Physical Exam Findings

1. Assess if the student knows what findings to look for on a well woman exam or genital exam that would make her suspicious for a STI.
   One way to think about assessing and documenting findings on a well woman exam is to think of the exam as going from the outside inwards. Start with inspection of the labia majora and perianal regions, followed by the labia minora and hymen, the vaginal vault, and finally the cervix and adnexa (seen via speculum exam and felt on bimanual exam). Look for ulcers or warts, discharge, blood, yeast, foreign bodies (e.g. tampons), masses, and cervical friability. Normal variations such as skin tags may be noted and Tanner stage should also be documented.

2. Assess if the student know that many STIs are asymptomatic and the patient may not even be aware she is affected.
   Many teenagers feel that they will know if they have an STI because they will have discharge, fever, or feel ill. In fact, many STIs are spread among multiple partners because they do not present with any such symptoms and yet are colonizing the patient’s body. (This is why physicians test for common STI’s such as Gonorrhea and Chlamydia, Syphilis, and HIV on routine exams for sexually active teens at increased risk of infection, with the patient’s consent.) The US Preventive Services Task Force recommends that all sexually active females younger than 25yo be considered at increased risk for Chlamydia and gonorrhea and be screened accordingly.

Clinical Reasoning

1. What clinical reasoning goes into choice of birth control method for a teenager?
   a. Understand that teenagers may have many personal reasons for choosing a certain kind of contraception but their decision may be based on misconceptions. Teenagers often get advice and information from their peers instead of trained healthcare professionals and it is important to dispel any myths about contraception. For example, many young women are afraid of starting oral contraceptive pills (OCPs) for fear of gaining weight. Studies have shown that OCPs are in fact not responsible for any detectable weight gain and that it is a teenager’s diet and lack of activity that causes weight gain.
   b. When counseling a teenager about contraception, go through the options listed above and describe each one with some of the advantages and disadvantages of each method.
   c. Side effects and contraindications should also be touched upon. Some teenagers will find it difficult to remember to take a pill daily while others may be afraid of needles. These personal preferences will help to guide you in what manner of contraception is best for each individual and also determine the focus of counseling in future visits.

2. What are the guidelines for maintaining patient confidentiality in cases where a minor is pregnant or has an STI?
   a. Most states allow minors to consent for treatment of STDs, to receive drug and alcohol treatment, to receive prenatal care and care surrounding delivery of a child, and to receive treatment for mental illness such as depression. In most states physicians are not required to tell a parent about the minor's condition or treatment although confidentiality is sometimes breached due to billing.
   b. What resources other than a doctor's office are available to teenagers to receive contraception?
   c. The ability of a teenager to have access to doctor's visits to get shots or prescriptions may be limited. Teen health clinics located in local area schools are valuable places for teenagers to get contraception and be treated for STDs and sometimes even to receive prenatal care. Planned parenthood offices, locations, and hours may be available online.

Diagnosis:

What kinds of lab tests are available to diagnose common sexually transmitted diseases?
   a. Syphilis RPR
   b. HIV antibody
   c. GC/Chlamydia Nucleic Acid Amplification Test

Suggestions for Learning Activities:

- Role Play – have the student role play counseling a patient about contraception. The student would have to ask the parent to leave the room, obtain a sexual history and then educate the patient on options for birth control and STI prevention.
- Role Play – have the student role play "breaking bad news" that a patient has a STI
- Discuss what you would do if your patient is using their contraception intermittently. What would you do next?

Other Resources:

- Zieman M, Hatcher RA et. al. A Pocket Guide to Managing Contraception. Tiger, Georgia: Bridging Gap Foundation, 2010.
- Meyers, et al. USPSTF Recommendations for STI Screening. American Family Phsician. 2008 Mar 15, 77(6): 819-824

<u>Prevention, Case #9</u>

Written by Ragini Miryala, M.D.

The parents of a newborn are concerned about Sudden Infant Death Syndrome and have purchased a baby alarm. What advice would you give them to help prevent SIDS in their infant?

Definitions for Specific Terms:

<u>Sudden Infant Death Syndrome</u>- Defining SIDS is still a dilemma because pathognomonic postmortem findings have yet to be identified. It remains a diagnosis of exclusion but there have been dramatic developments in understanding its epidemiology and pathology. An expert panel of experienced forensic pathologists has proposed the following definition in 2004: "the sudden and unexpected death of an infant under 1 year of age, with onset of the fatal episode apparently occurring during sleep, that remains unexplained after a thorough investigation including performance of a complete autopsy, and review of the circumstances of death and the clinical history.

<u>The epidemiology of SIDS</u>- The SIDS rate in 2004 was 0.54/1000 live births compared with 2-3 times that before the early 1990's. However, SIDS is still the most common cause of infant death in the post-neonatal period accounting for 23% of all deaths in this group.

Review of Important Concepts:

Historical Points

These historical points are significant given the risk factors for SIDS:

- Birth History
- Sleep History
- Smoking History

Physical Exam Findings

Recognize that documentation of any physical exam findings of injury or trauma to the child is important in suspected SIDS deaths. Bruises, especially those with characteristic patterns of handprints or household objects, cigarette burns, and fractures may reveal other causes of death.

Clinical Reasoning

1. What are the risk factors for SIDS?
   a. Premature birth, low birth weight, lower socioeconomic class, young maternal age, and short inter-gestational interval.
   b. Cigarette smoke exposure is an important and modifiable risk factor.

2. What advice is given to the parents of newborns to prevent SIDS?
   a. Explain to parents that 90% of SIDS deaths primarily occur by the sixth month of life. For anxious parents, knowing this may help give them a timeline after which they can feel more comfortable discontinuing the use of the baby alarm. Advise parents that the following measures have shown a considerable decline in SIDs deaths:

b. Supine placement of infants to sleep, i.e. “back to sleep”. The “Back to Sleep” campaign and other public educational programs have led to dramatic declines in SIDS rates.
   - Use of a firm sleep surface
   - Avoidance of excessive wrapping or bundling
   - Avoidance of prenatal and postnatal exposure to cigarette smoke
   - Bed-sharing (sometimes equated with co-sleeping which can mean sleeping in the same room as opposed to sleeping in the same bed) remains controversial as a risk factor for SIDS but the American Academy of Pediatrics recommends that the infant is safest when sleeping alone.

3. Do baby alarms prevent SIDS?
   Although baby alarms may provide comfort and reassurance, they have not been proven to reduce the risk of SIDS nor can they prevent SIDS. In addition, they may alarm even when the child is not in distress and create unnecessary worry or loss of sleep.

Diagnosis:

How is the diagnosis of SIDS reached and what is on the differential?

a. Understand that the diagnosis of SIDS is a forensic diagnosis that involves a pathologist to help exclude other causes of death.
b. Many infant deaths remain unclassified due to lack of autopsy or when the circumstances surrounding the death are equivocal.
c. Infant death may result from natural disease, accidental or inflicted injuries, or asphyxia.

Suggestions for Learning Activities:

Role Play – Have a student counsel a parent about SIDS

Other Resources:

- www.cdc.gov/SIDS
- Krous, HF, Beckwith JB, Byard RW, et al. Sudden Infant Death Syndrome and unclassified sudden infant deaths: a definitional and diagnostic approach. Pediatrics. 2004: 114:234-238.
- Mathews TJ, MacDorman MF: Infant Mortality Statistics from the 2004 period linked birth/infant death data set. Natl Vital Stat Rep 2007; 55:1:1-32
- “Sudden Infant Death Syndrome and Fatal Child Abuse” Krous, Henry F; Byard, Roger W.; Reese, Robert; Christian, Cindy editors; Child Abuse Medical Diagnosis and Management 3rd edition, American Academy of Pediatrics 2009.
- Krous, Henry; Byard, Roger; “Sudden Infant Death Syndrome or Asphyxia?”; Jenny, Carole editor. Child Abuse and Neglect: Diagnosis, Treatment and Evidence, Saunders 2010.