

10. FAMILY PLANNING/CONTRACEPTION

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The U.S. Preventive Services Task Force (USPSTF) review of "Counseling to Prevent Unintended Pregnancy" (1989), as well as the background papers in *Preventing Disease, Beyond the Rhetoric* (Feldman, 1990; Fielding and Williams, 1990, in Goldbloom and Lawrence, 1990) were used for the sections describing the importance of and recommendations for screening and counseling. For specific indicators regarding contraceptive methods, the relevant American College of Obstetricians and Gynecologists (ACOG) Committee Opinions and Technical Bulletins were consulted. In addition, *Contraceptive Technology* (Hatcher et al., 1994, pp. 233-284) and the textbook, *Infertility, Contraception and Reproductive Endocrinology* (Mishell, 1991, in Mishell et al., 1991) were used.

IMPORTANCE

Unintended and unwanted pregnancies are common in the United States. It has been estimated that 37 percent of births among women aged 15-44 are unintended, and just over one-quarter of those (10 percent of all births) are thought to be unwanted. As many as 18 percent of births to women aged 35-44 may be unwanted (USPSTF, 1989). Unwanted pregnancy is a risk factor for late entry into prenatal care, which has been associated with low birthweight and other poor pregnancy outcomes (USPSTF, 1989). Children born as a result of unwanted pregnancies are at increased risk for child abuse and neglect, and for behavioral and educational problems later in life. Unwanted pregnancies among adolescents are common, with as many as 10 percent of girls in the United States aged 15-19 becoming pregnant each year. Sixty-six percent of unmarried teenage girls are sexually active by the age of 19 (USPSTF, 1989).

EFFICACY OF INTERVENTION

Screening for Risk of Unintended Pregnancy

While there is no direct evidence available that taking a sexual history and offering contraception if desired lowers the rate of unintended pregnancy, counseling to prevent unintended pregnancy is widely recommended (USPSTF, 1989; Fielding and Williams, 1990, in Goldbloom and Lawrence, 1990). Except for abstinence, the most highly effective methods of contraception (hormonal methods, sterilization, and IUD) require a visit to a health professional. Providers who do not ask about sexual activity and contraceptive practices may miss the opportunity to offer an intervention (contraception) that prevents a serious adverse health outcome (unintended pregnancy). There is evidence that many providers do indeed miss that opportunity. One study of Canadian teens revealed that although 85 percent had seen their doctor in the preceding year, only one-third of sexually active girls had ever discussed contraception with their doctors (Feldman, 1990, in Goldbloom and Lawrence, 1990). According to a report by the World Health Organization, if all sexually active couples had routinely used effective contraception in 1980, there would have been almost 1 million fewer abortions, 340,000 fewer unintended births, 5,000 fewer infant deaths, and a reduction in the infant mortality rate of 10 percent (IOM, 1995). Furthermore, if the proportion of unintended pregnancies were reduced by 30 percent in the U.S., there would be 200,000 fewer unwanted births, and 800,000 fewer abortions each year (IOM, 1995).

Once it has been determined that an individual is at risk for unintended pregnancy (i.e., is sexually active without contraception or with ineffective contraception and does not desire pregnancy at that time), providers should discuss the risks and benefits of the various methods and offer the most acceptable contraceptive methods to her (USPSTF, 1989; Fielding and Williams, 1990, in Goldbloom and Lawrence, 1990). In a recent report on prevention of unintended pregnancy, the Institute of Medicine concluded that "...too few providers of health care...use all available opportunities to discuss contraception and the importance of intended pregnancy to the health and well-being of women

and men, children and families" (IOM, 1995). The appropriate interval for screening for risk of unintended pregnancy has not been determined, but we propose that this be done annually.

Treatment

Effective methods exist for preventing unintended pregnancy. These include abstinence, sterilization, hormonal contraceptives (oral, injectable, and implants), intra-uterine devices and barrier methods. Other methods, such as periodic abstinence, coitus interruptus and spermicides are less effective. Oral contraceptives (OCs) are the most commonly used non-permanent form of contraception in the United States. Approximately 10 million women in the U.S. currently use this method (USPSTF, 1989). OCs generally contain both an estrogen and progestin component ("combination" OCs), although a progestin-only pill is also available. Combination OCs are highly effective in preventing pregnancy, with failure rates of 0.1 to 3.0 percent.

While oral contraceptives have many non-contraceptive benefits (e.g., reduction in menstrual flow, decreased dysmenorrhea, decreased anemia, lower risk of ovarian and endometrial cancer), they are also associated with health risks which may exceed their contraceptive benefit in some groups of women (ACOG Technical Bulletin, 1994). Specifically, women who smoke and take oral contraceptives are at increased risk of cardiovascular disease when compared to non-smoking OC users. The Royal College of General Practitioners' oral contraceptive study (Croft and Hannaford, 1989) recruited 1,400 OC users and 1,400 non-users in 1968 and followed this cohort to study the health effects of OC use. A nested case-control study using these data showed that neither current nor past OC use was a risk factor for myocardial infarction (MI) when other risk factors were controlled for. However, OC users who smoked were at increased risk of MI compared to non-smoking OC users. Those who smoked fewer than 15 cigarettes per day had a relative risk of MI of 3.5 (95 percent CI 1.3-9.5), and those who smoked more than 15 cigarettes per day had a relative risk of MI of 20.8 (95 percent CI 5.2-83.1). (These relative risks are not adjusted for age, hypertension or other risk factors for MI.) Although data on OC

formulation were not reported, many of the pill users in this study were likely to have been using a 50 mcg OC at the time of recruitment. Data regarding the risk of smoking and low-dose OC use, stratified by age, are not available. Because earlier studies (primarily involving higher dose OCs) suggested that the increased risk of cardiovascular disease associated with OC use was concentrated in women over the age of 35, the consensus is that women over the age of 35 who smoke should not be prescribed oral contraceptives (ACOG Committee Opinion, 1985; ACOG Technical Bulletin, 1994; Mishell, 1991, in Mishell et al., 1991). Progestin-only contraceptives, IUDs, barrier methods or sterilization may be offered to women in this category (ACOG Technical Bulletin, 1994).

RECOMMENDED QUALITY INDICATORS FOR FAMILY PLANNING/CONTRACEPTION

The following criteria apply to all post-menarchal women.

Screening

Indicator	Quality of evidence	Literature	Benefits	Comments
1. A history to determine risk for unintended pregnancy should be taken yearly on all women. In order to establish risk, the following elements of the history need to be documented: a. Menstrual status (e.g., pre- or post-menopausal, history of hysterectomy, etc.), last menstrual period, or pregnancy test; b. Sexual history (presence or absence of current sexual intercourse); c. Current contraceptive practices; and d. Desire for pregnancy	III	USPSTF, 1989	Prevent unwanted pregnancies and births. Prevent abortions.	The USPSTF does not make a recommendation for screening interval. As many as 37% of births among women aged 15-44 are unintended and over one quarter are unwanted. The goal of these recommendations is to identify women at risk for unintended pregnancies and counsel appropriately those who are interested in contraception.

Treatment

Indicator	Quality of evidence	Literature	Benefits	Comments
2. Women at risk for unintended pregnancy should receive counseling about effective contraceptive methods.	III	USPSTF, 1989	Prevent unwanted pregnancies and births. Prevent abortions.	Women at risk for unintended pregnancy are those who are sexually active without effective contraception and who do not desire pregnancy. Effective contraception is defined as: 1) Hormonal contraception (OC, injectable prostaglandins or implants) 2) IUD 3) Barrier + spermicide 4) Sterilization 5) Complete abstinence
3. The smoking status of women prescribed combination OCs should be documented in the medical record.	II	ACOG Technical Bulletin, 1994	Prevent myocardial infarction and other thromboembolic complications.*	Women who smoke and use combination oral contraceptives (containing both estrogen and progestin component) are at risk for myocardial infarction (relative risk is 20 times greater than in women who do not smoke). Therefore, if prescribing oral contraceptives, the smoking status should be documented.

4. Women who smoke and are prescribed oral contraceptives should be counseled and encouraged to quit smoking.	II-2	Croft and Hannaford, 1989; Kottke et al., 1988	Prevent myocardial infarction and other thromboembolic complications.*	Because smoking increases risk of MI among women using oral contraception, and also has other long term toxicities (lung cancer, chronic lung disease, etc.), women should be counseled to quit. Counseling by physicians has been shown to be effective.
5. Women over age 35 who smoke should not be prescribed combination oral contraceptives.	II-2	ACOG Technical Bulletin, 1994	Prevent myocardial infarction and other thromboembolic complications.*	The risk from oral contraceptives in smokers is probably highest for women over age 35.

*Thromboembolic complications include myocardial infarction, cerebrovascular accident, thrombophlebitis, and pulmonary emboli.

Quality of Evidence Codes:

- I: RCT
- II-1: Nonrandomized controlled trials
- II-2: Cohort or case analysis
- II-3: Multiple time series
- III: Opinions or descriptive studies

REFERENCES - FAMILY PLANNING/CONTRACEPTION

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