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Increasing intrauterine contraception use by reducing barriers to post-abortal and interval insertion☆

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Abstract

Background: We hypothesize that barriers to IUD insertion are central to low utilization in the USA. This study evaluates methods to minimize barriers, including post-abortal insertion, staff training and simplified screening.
Study Design: We obtained data on IUD utilization during three study periods: a control period (Period 1), a period after initiating post-abortal insertion and staff training (Period 2), and a period with these interventions plus simplified screening for interval insertions (Period 3). We evaluated IUD utilization, associated complications and utilization at a similar local agency in which the interventions were not implemented.
Results: We inserted 2172 IUDs during the study, including 1493 interval and 679 post-abortal insertions. In the control period, there were 28 monthly IUD insertions on average, compared to 71 (a 151% increase) and 122 (a 334% increase) in Periods 2 and 3, respectively. IUD utilization at the nearby agency remained relatively constant. Complications remained low.
Conclusions: IUD utilization can be substantially increased through relatively simple, low-cost interventions, with significant potential to reduce unintended pregnancy.

Keywords: Intrauterine device; IUD; Intrauterine contraception; Post-abortal insertion; Barriers

1. Introduction

The intrauterine device (IUD) provides a safe, long-acting form of reversible contraception that continues to be under-utilized in the USA. Both the copper-T380a (Cu-T380a) and the levonorgestrel-releasing intrauterine device (LNG-IUD) are equally or more effective at preventing pregnancy than tubal sterilization [1]. Additionally, IUDs have proven to be one of the most cost-effective forms of reversible long-acting contraception [2]. Despite these advantages, the 2002 National Survey of Family Growth found that only 1.3% of US women of reproductive age use the IUD [3], in contrast to some parts of the world, where IUD is among the most widely used method of reversible contraception [4]. We hypothesize that barriers to insertion of IUDs are central to low utilization in the USA.

Recent evidence-based labeling changes for the Cu-T380a allow for insertion of the device in women who are nulliparous, have a history of pelvic inflammatory disease (PID) or sexually transmitted infection (STI) without current high risk, or are not in a mutually monogamous relationship [5]. Updated WHO medical eligibility criteria have also expanded eligibility to women in whom IUD was previously

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Table 1
IUD Contraindications and special conditions

Contraindications
Current known or suspected untreated endocervical gonorrhea, chlamydia, mucopurulent cervicitis or pelvic inflammatory disease (WHO, 4)
Post-abortal or postpartum endometritis in past 3 months (WHO, 4)
Undiagnosed abnormal vaginal bleeding (WHO, 4)
Pregnancy or suspicion of pregnancy (WHO, 4)
Known cervical cancer that has yet to be treated (WHO, 4)
Known endometrial cancer (WHO, 4)
Known or suspected breast cancer (LNG-IUD only) (WHO, 4)
Known pelvic tuberculosis (WHO, 3/4)
Acute liver disease or liver tumor — benign or malignant (LNG-IUD only) (WHO, 3)
Known or suspected allergy to copper or history of Wilson's disease (CuT380a only)*
Small uterine cavity with sounding less than 6.0 cm*
Suspected or known uterine perforation occurring with placement of a uterine sound during the current insertion procedure*
History of symptomatic pelvic actinomycosis confirmed by a culture*
Special conditions
Abnormalities of the uterus resulting in distortion of the uterine cavity (WHO, 4)
Known or suspected ovarian cancer (WHO, 3)
Current deep vein thrombosis/pulmonary embolism (LNG-IUD only) (WHO, 3)
Presence of risk factors for PID or STIs (WHO 2/3)
Client or her partner has other sexual partners*
Past gonorrhea, chlamydia, mucopurulent cervicitis or PID
Impaired immunologic response to infections
Unresolved or untreated acute cervicitis or vaginitis (WHO, 2)
PID within past 12 months or recurrent PID (>1 episode in past 2 years) (WHO, 2)
Hematocrit <30% (an issue for CuT380a only) (WHO, 2)
History of impaired fertility in a woman who desires future pregnancy*
Impaired blood coagulation response, including use of anticoagulant medications*

WHO class refers to WHO Medical Eligibility Criteria, 2004 [6]: 1=A condition for which there is no restriction for the use of the contraceptive method. 2=A condition where the advantages of using the method generally outweigh the theoretical or proven risks. 3=A condition where the theoretical or proven risks usually outweigh the advantages of using the method. 4=A condition which represents an unacceptable health risk if the contraceptive method is used.

* Shea, K. 2005. Personal Communication regarding PPFA Manual of Medical Standards and Guidelines. 15 May, New York [20].

contraindicated [6]. Office practice, however, has not yet caught up to new evidence. Lingering misperceptions exist among both healthcare providers and the public regarding IUD safety [4,7–9] and contribute to its underutilization.

Screening and office protocols also present barriers to IUD access. Prevailing practice has dictated that STI screening must be completed and negative laboratory results confirmed prior to insertion of an IUD. Such screening requirements necessitate multiple office visits and a waiting period, during which potential IUD users may become pregnant or fail to return for insertion. In light of new evidence-based labeling and updated WHO medical eligibility criteria, it is becoming more acceptable to allow IUD insertion on the same day as STI screening among low-risk women with no clinical evidence of infection [5,6,10,11].

Immediate post-abortal insertion of an IUD has been shown to be acceptable, safe and effective [12–15], and has several advantages to delayed insertion including high motivation, less discomfort, assurance the woman is not pregnant and reduced burden on both patient and healthcare system. Patient labeling for the Cu-T380a and the LNG-IUD, as well as WHO criteria, allows for insertion of an IUD immediately after early abortion [5,6,16]. Nevertheless, day-of-abortion insertions have not become widespread in the USA perhaps due to lingering provider concerns regarding IUD-associated risk of infection and litigation [9]. Recent studies, however, have established that IUD insertion right after a first trimester abortion carries no increased risk of perforation, infection or discontinuation, and only a minimal increase in the risk of expulsion over delayed insertion [17–19].

We hypothesize that a comprehensive effort to minimize barriers to IUD insertion, including immediate post-abortal insertion, staff training and introduction of simplified screening criteria, will result in a significant increase in IUD utilization.

2. Materials and methods

The objective of this study was to evaluate the cumulative impact of three different interventions on IUD utilization in a Northern California Planned Parenthood agency. Interventions included (1) immediate post-abortal IUD insertion, (2) staff and clinician IUD training, and (3) simplified screening criteria for low-risk candidates, allowing for interval IUD insertion on the same day as client screening. A secondary objective was to evaluate IUD-associated complications during these interventions.

We evaluated changes in IUD utilization across three distinct study periods. The first 16 months of the study (November 2002 to February 2004) was a control period prior to any study intervention. Period 2 covered the second 14 months of the study (March 2004 to April 2005), during which we introduced two interventions: immediate post-abortal IUD insertions and staff IUD training. The final 6 months of the study, Period 3 (May to October 2005), included these two interventions with the addition of simplified patient screening criteria.

Following the control period, the first intervention introduced (March 2004) was immediate post-abortal IUD insertion. National protocols incorporating the WHO Medical Eligibility Criteria [6] were individualized for our agency to allow these IUD insertions in the absence of known or suspected infection, contraindications or special conditions (see Table 1) [20]. After receiving standard contraceptive counseling, women desiring intrauterine contraception received IUD client information, were evaluated for eligibility using a company IUD risk factor assessment and provided their informed consent. We gave either prophylactic or treatment dose antibiotics to each