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## Original research article

# LARC utilization based on type of medical abortion follow-up at an academic center

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### Abstract

**Objective:** Compare long-acting contraceptive (LARC) utilization 1 month following a medical abortion among women who chose office or telephone follow-up.

**Materials and Methods:** We performed a chart review of 79 patients in a new medical abortion service. Women chose a 1-week follow-up inoffice or by phone. Contraceptive implants could be placed 1 week and intrauterine contraceptives 4 weeks after mifepristone administration. **Results:** LARC methods were desired by 38% and 44% of women, and received by 27% and 29% of women in the office and phone follow-up groups, respectively (p=.8).

Conclusion: The choice of follow-up in-office or by phone did not change the LARC uptake rate.

Implications: Women should not be discouraged to follow up by phone due to concern for decreased LARC uptake.

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Keywords: Medical abortion; Contraception; Long-acting reversible contraception (LARC); Follow-up

### 1. Introduction

Although many studies have evaluated initiation of contraception after a medical abortion, no reports have addressed contraception uptake based on patient's choice of follow-up. Some assessment of medical abortion outcome is necessary and may include an in-office visit with ultrasonography or exam, serum hCG testing or telephone follow-up [1]. This study aimed to determine differences in long-acting reversible contraceptive (LARC) uptake at 1 month after medical abortion based on the patient's choice of follow-up method.

### 2. Materials and methods

We performed this retrospective chart review after receiving approval from the University of California Institutional Review Board. This study included women who had a medical abortion from August 2012 to October 2013, during the first 14 months of a new medical abortion program at the University of California, Davis. The study population included women seeking a medical abortion through 63 days' gestation with no contraindications to mifepristone or misoprostol. We used the office mifepristone dispensing log to identify subjects for this review.

A trained scheduler explained medical and surgical options to women who contacted our office seeking abortion and scheduled the women for the method they preferred. Medical abortion patients received mifepristone 200 mg and could choose to use misoprostol 800 mcg vaginally 0 to 72 h later or buccal misoprostol 24 to 72 h later. The women were scheduled for a 1-week follow-up assessment; patients could choose to attend an office visit with transvaginal ultrasonography or to follow up by phone, as described by Perriera at el [2]. For the latter group, if the patient and clinician both decided that the pregnancy had passed, the patient was asked to perform a home urine pregnancy test prior to a second

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phone call in 3 weeks, or return to the office in 3 weeks should she desire LARC placement. Patients who chose office follow-up and desired LARC could get an implant the day of follow-up or return in 3 weeks for an intrauterine device (IUD). Women who desired a hormonal prescription contraceptive were given the prescription at the time of mifepristone administration. Those who desired depot medroxyprogesterone acetate could receive an injection at the 1-week follow-up visit or whenever they chose after the first phone follow-up call. Women who expelled the pregnancy without requiring any surgical intervention were considered to have had a successful medical abortion.

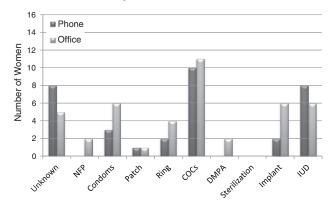
Two investigators (K.R. and A.D.) extracted and entered the descriptive data into a de-identified database. Standardized electronic medical record templates for medical abortion include demographic information, details about the medical abortion process (including type of follow-up) and contraception plans. Patients in whom no method of contraception was indicated were considered unknown. We compared LARC uptake at 1 month by choice of follow-up using Fisher's Exact Testing, with a p<.05 considered significant.

### 3. Results

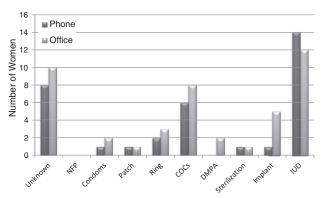
Between August 2012 and October 2013, our facility provided 79 medical abortions; all charts were available for review. Demographic characteristics among women choosing office and phone follow-up were similar. Overall, women averaged 29±7 years of age, with 59 (75%) having a prior pregnancy and 26 (33%) having a prior abortion. The women were racially and ethnically diverse, with 25 (32%) identifying themselves as Caucasian, 12 (15%) as African American, 11 (14%) as Asian, 11 (14%) as Hispanic and 20 (25%) as mixed or other. Misoprostol was used vaginally by 72 (91%) women and buccally by 7 (9%) women. Five (6%) women (three office and two phone follow-up) were lost to follow-up, only one of which desired LARC. Of the 74 women with follow-up, successful medical abortion occurred in 39 (93%) of 42 choosing office and 30 (94%) of 32 choosing phone follow-up.

Forty-five (57%) women chose office and 34 (43%) chose phone follow-up. Fig. 1 shows the contraceptive methods planned and received based on type of follow-up. More women planning a contraceptive implant chose office follow-up than phone follow-up (5 vs. 1); however, the same was not true for women desiring an IUD (12 vs. 14, respectively). About two-thirds of those who desired LARC in each group returned to receive LARC (p=.8) (Table 1). More women were using condoms and oral contraceptives at 1 month than those who originally planned to use these methods. Of the 10 women who desired LARC but did not receive it, 3 women were using condoms, 3 were using oral contraceptives and 4 were not using contraception.

### **Contraception Utilization at One Month**



### **Contraception Plan at Time of Medical Abortion**



NFP =natural family planning
COCs = combined oral contraceptives
DMPA = depomedroxyprogesterone acetate injection
IUD = intrauterine device

Fig. 1. Contraceptive methods chosen and received for medical abortion based on type of follow-up (in office or telephone).

### 4. Discussion

LARC uptake within the first month after medical abortion did not differ between women who chose phone follow-up vs. office follow up. Women may choose among various follow-up options for different reasons, including their comfort level with knowing whether the medications worked or their ability to access LARC.

These results represent the findings from a new medical abortion service, which at the time limited IUD placement to 4 weeks following mifepristone administration. Providing IUDs at 1 week after medical abortion treatment could increase IUD utilization and potentially change which

Table 1 LARC desire and receipt based on type of follow-up after medical abortion

	Office follow-up ( <i>n</i> =45)	Phone follow-up ( <i>n</i> =34)	Total ( <i>n</i> =79)
Desired LARC Received LARC*	17 (38%)	15 (44%)	32 (41%)
	12 (27%)	10 (29%)	22 (28%)

<sup>\*</sup> p=.8.

follow-up method women choose. Women planning a contraceptive implant more frequently selected office follow-up, demonstrating this scheduling choice. Increasing access and utilization is important since immediate access to LARC methods after surgical abortion has been shown to decrease repeat pregnancy rates over 1 year [3]. Recent studies suggest that IUD placement is safe for women as early as 1 week after mifepristone administration, albeit with high expulsion rates [4]. Although expulsion rates are similar whether IUDs are inserted 1 or 4 weeks following mifepristone, the rates are substantially higher over 6 months (11% to 12%) as compared to placement immediately after surgical abortion (5%), or 2–6 weeks after surgical abortion (2.7%) [5]. Further studies should explore IUD expulsion and long-term utilization rates with placement beyond 1 month after medical abortion.

A strength of this exploratory evaluation of contraceptive uptake after medical abortion is the high follow-up rate. However, the study is limited by its small size and the lack of evaluation of contraceptive uptake and use beyond 1 month. Until more data are available from prospective studies, women should not be discouraged to follow up by phone due

to concern for decreased LARC uptake. We do not know why one-third of the women who initially wanted an LARC did not receive one. Future research should also focus on identifying which women who desire LARC methods are more likely not to return for placement.

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