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Original research article

Simplified follow-up after early medical abortion: 12-month experience of a telephone call and self-performed low-sensitivity urine pregnancy test☆,☆☆

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Abstract

Objective: The objective was to determine if simplified follow-up after early medical abortion, consisting of a telephone call 2 weeks after the procedure plus a self-performed low-sensitivity urine pregnancy (LSUP) test, was successful for screening for ongoing pregnancies in the year following its introduction as standard service.
Study design: A retrospective computerized database review of 1084 women at a hospital abortion service in Edinburgh, UK, who had a medical abortion (≤9 weeks) and went home to expel the pregnancy was performed. Women who screened 'positive' at telephone follow-up on the basis of ongoing pregnancy symptoms, scant bleeding or LSUP test result were scheduled for an ultrasound. The main outcome measures were the proportion of women scheduled for telephone follow-up successfully contacted and the proportion of ongoing pregnancies detected.
Results: A total of 943 women were scheduled for telephone follow-up. Ten women presented to the hospital before the time of the follow-up call. Of the remaining 933 women, 656 [70%, 95% confidence interval (CI) 67.7-73.2] were successfully contacted. Five hundred seventy-three (87%, 95% CI 84.5–89.7) of those contacted screened 'negative'; no false negatives occurred. Eighty-three (13%, 95% CI 10.2–15.5) screened 'positive,' and of those, three had ongoing pregnancies. Of the 277 (30%, 95% CI 26.7–32.7) who were not contacted, two ongoing pregnancies occurred. The sensitivity of telephone follow-up with LSUP to detect ongoing pregnancy was 100% (95% CI 30.9%–100%), and specificity was 88% (95% CI 84.9%–90.1%). The negative predictive value was 100% (95% CI 99.1%–100%), and positive predictive value was 3.6% (95% CI 0.9%–10.9%).
Conclusion: A telephone call and LSUP test at 2 weeks are suitable as a standard method of follow-up for screening for ongoing pregnancy after early medical abortion.
Implications statement: For most women, a routine clinic follow-up after early medical abortion (to exclude ongoing pregnancy) can be replaced with a telephone call and a self-performed LSUP test at 2 weeks postprocedure.

Keywords: Termination of pregnancy; Medical termination of pregnancy; Telephone follow-up; Postabortal

1. Introduction

An increasing proportion of women requesting an abortion in the United States and parts of Europe (e.g., United Kingdom, Sweden and France) are opting for medical abortion and choosing to go home to expel the pregnancy [1–6]. Failure (ongoing pregnancy) occurs in 1% of cases of medical abortion, and follow-up is used to exclude ongoing pregnancy [4]. An ultrasound scan at a return visit can be used to exclude an ongoing pregnancy, although it can lead to unnecessary intervention for clinically unimportant but

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ultrasonically visible products of conception [7,8]. Furthermore, the reported rates of failure to return for ultrasound following abortion are high (21%–50%) [9,10]. Several studies in recent years have assessed alternative methods of follow-up, including combinations of clinician and/or women's self-assessment of bleeding and symptoms following the procedure, measurement of serum human chorionic gonadotropin (hCG) levels and use of both low- and high-sensitivity urine pregnancy (LSUP and HSUP, respectively) tests postprocedure [11–14]. Many have been limited by small numbers of subjects, which make calculations of efficacy of follow-up difficult. We recently reported the findings of a pilot study of telephone follow-up with a home self-performed LSUP test 2 weeks after medical abortion. We chose to use an LSUP test at 2 weeks rather than an HSUP at 1 month since women have previously stated that they would prefer to have an indication of success of the procedure sooner rather than later. We showed that this method was effective at detecting ongoing pregnancies and was acceptable to women [14]. As a result, this method of follow-up was introduced to our hospital-based abortion service in Edinburgh, UK, starting in March 2011 as standard follow-up for women undergoing early medical abortion (≤ 9 weeks) who chose to go home to expel the pregnancy.

The main objective of this study was to determine if telephone follow-up with an LSUP test continued to be a suitable method to detect ongoing pregnancies over the year following introduction as 'standard' service. The primary outcome measure was to determine the validity of this method for detecting ongoing pregnancy after early medical abortion, and a secondary outcome was to determine the ability to contact patients for scheduled telephone follow-up.

2. Materials and methods

The Royal Infirmary of Edinburgh, Scotland, is the largest hospital in Edinburgh and the main provider of abortion services in the region. The treatment regimen used for early medical abortion at this hospital consists of oral 200 mg mifepristone (Mifegyne, Nordic Pharma, UK) followed 24 to 48 h later with 800 mcg of misoprostol (Cytotec, Pharmacia, UK) administered vaginally. Since March 2009, women at 9 weeks' gestation or less who wished to leave the hospital premises soon after administration of misoprostol to pass the pregnancy at home, rather than remaining in hospital, are able to do so. They must fulfill the following criteria: no medical contraindications to medical abortion, ≥ 16 years of age, the presence of adult support at home with them, no known cause for concern (child protection issues etc.), not requiring interpreting services, living within reasonable traveling distance from the hospital and fulfilling the requirements of the 1967 Abortion Act [14].

Standard practice is telephone follow-up and self-performed LSUP at 2 weeks, unless women specifically requested a clinic appointment for ultrasound. The arrangements for telephone follow-up were similar to the pilot study [14], whereby women were given a date 2 weeks after the medical abortion on which to expect a telephone call from a nurse working within the abortion service. Women provided either or both a mobile and landline contact telephone number at their initial visit. In addition, women were given clear written and pictorial instructions regarding how to administer the LSUP test on that same day. The LSUP test was a double-cassette that gave a color change when urine hCG levels of 1000 IU or greater were present in the 1000-IU detecting cassette (Baby check Duo, Quadratech Diagnostics, UK). A positive result at 2 weeks in this cassette would thus indicate a possible ongoing pregnancy [15]. Women were also given written information about signs/symptoms that would indicate the need for attendance at the hospital before the planned telephone call. Specifically, women were advised that if they had 3 or fewer days of bleeding after misoprostol or had continuing pregnancy symptoms, then they should not wait for the telephone call at 2 weeks but should contact the abortion service to arrange a clinic review to exclude ongoing pregnancy. Additionally, they were advised to contact the service if they did not get their next menstrual period as expected even if the LSUP test was negative.

When we contacted women, we asked them to describe the process of administering the LSUP test and describe the findings to confirm correct interpretation of the results. We also asked about the amount and number of days of bleeding and about any pregnancy symptoms they may be experiencing. Women were considered to have screened 'positive' at the 2-week telephone follow-up if they had a positive urine test, continuing pregnancy symptoms, 3 or fewer days of bleeding, or either lost the test or had a test result that was uninterpretable. A positive screen indicated the need for a clinic visit for an ultrasound to exclude ongoing pregnancy. If there were any doubts about the correct conduct of the test or if the test result was uninterpretable, then women were offered an ultrasound or they could elect to perform a further LSUP test.

We conducted a retrospective review of the abortion care service database of women who were scheduled for telephone follow-up combined with a self-performed LSUP test from March 2011 through February 2012. We extracted information on demographics, including age, reproductive history, gestational age at time of abortion and postcode area of residence (used to determine deprivation category score in Scotland, from 1=least deprived to 7=most deprived [16]). We also identified the proportion of women successfully contacted by telephone and the outcome of that call and any other follow-up documented. In all cases where women were not reachable, did not attend scheduled follow-up for an ultrasound scan or had screened negative, the regional hospital computerized database of patient records was searched to determine if women were known to have been admitted with an ongoing pregnancy or if the index pregnancy had resulted in a live birth within the region. The regional