

Assessment of a 'fast-track' referral service for intrauterine contraception following early medical abortion

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Received 15 June 2011

Accepted 8 December 2011

Published Online First

31 January 2012

Abstract

Background A 'fast-track' referral system for intrauterine contraception was established in 2007 between the medical abortion service at the Royal Infirmary of Edinburgh and the principal family planning clinic (FPC) in Edinburgh.

Methods Case note review of women fast-tracked for intrauterine contraception after medical abortion between January 2007 and June 2009. Main outcome measures were numbers of women referred, attendance rates, interval to insertion, devices chosen and known complication rates.

Results Of the 237 women referred, 126 (53%) attended for intrauterine contraception insertion. Attenders were slightly but significantly older than non-attenders (mean ages of 30 and 27 years, respectively; $p=0.003$), less likely to live in an area of deprivation ($p=0.045$) and were significantly more likely to have attended the FPC in the past ($p<0.0001$). Most attenders (90%; $n=113$) proceeded to have an intrauterine method inserted; 57% ($n=64$) chose the levonorgestrel intrauterine system and 43% ($n=49$) chose a copper intrauterine device. The median interval to insertion was 21 (range 0–54) days. Of those women ($n=55$) who attended for routine follow-up 6 weeks later (49%), there were four (7.2%) cases of expulsion, two (3.6%) requests for removal and four (7.2%) cases of suspected infection.

Conclusions Only half the women fast-tracked for intrauterine contraception actually attended and these tended to be women who were pre-existing clients of the FPC. Consideration should therefore be given to provision of immediate insertion where possible.

Introduction

Guidelines from the Clinical Effectiveness Unit of the Faculty of Sexual and Reproductive Healthcare (FSRH) recommend that post-abortion insertion of intrauterine contraceptive methods should ideally

Key message points

- ▶ Only half the women fast-tracked to local contraceptive services for an intrauterine method following early medical abortion actually attended.
- ▶ Attendance rates were higher among women who have previously used the contraceptive service.
- ▶ Research is required to determine the acceptability of inserting an intrauterine method immediately after medical abortion and the associated complication rates.

be conducted within the first 48 hours after abortion or else delayed until 4 weeks later.¹ For women choosing a surgical method of abortion who wish to use intrauterine contraception, an intrauterine device (IUD) or levonorgestrel intrauterine system (IUS) can usually be inserted at the time of the procedure by the gynaecologist. However, for women undergoing medical abortion, provision of an IUD or IUS immediately post-abortion may be difficult at units that have a predominantly nurse-delivered service and that do not have a trained member of staff who has sufficient skill and experience in inserting intrauterine methods immediately post-abortion.

The FSRH guidelines recognise that waiting until four or more weeks may put women at risk of pregnancy and therefore advise that after counselling an IUD or IUS may be inserted by an experienced clinician at any time post-abortion if there is no concern that the pregnancy is ongoing.¹

Guidance from the National Institute for Health and Clinical Excellence recommends that increased uptake of more effective long-acting reversible contraceptive methods could reduce unintended pregnancies in the UK.² Since 25–32% of women undergoing abortion have a repeat abortion, it is recognised that abortion services should offer high-quality contraceptive advice and provision of the most effective methods.^{3–5} These should include intrauterine methods. There is growing evidence that women

undergoing abortion who choose an intrauterine contraceptive method are less likely to have a repeat abortion.^{6–8} Guidelines on service standards for gynaecology from the Royal College of Obstetricians and Gynaecologists recommend that if a contraceptive method cannot be provided at the time of an abortion, then fast-track systems should be in place to ensure that women who wish to access it may do so without undue delay.⁵

In January 2007, a fast-track system was established between the medical abortion service of the Royal Infirmary of Edinburgh (RIE) and the main contraceptive services in Edinburgh at Dean Terrace family planning clinic (FPC). The RIE is the main provider of abortion services within NHS Lothian (Edinburgh and surrounding districts). Since provision of intrauterine methods was not offered within the medical abortion unit, the fast-track system was established so that women undergoing an early medical abortion (EMA) (≤ 9 weeks' gestation) who wanted an intrauterine method of contraception could be given an appointment for insertion of an IUD or IUS as soon as possible at the FPC. Each week, up to four clinic slots were reserved at dedicated intrauterine contraception fitting clinics at the FPC for women who had successfully aborted following an early medical method and who wished to use an intrauterine method. Women who wished to be fast-tracked received both written and verbal information about the method prior to the abortion procedure and also on the day of admission to the medical abortion unit. Only those women in whom a successful abortion had been confirmed (products of conception identified by nursing staff) were eligible to receive a fast-track appointment at the FPC. Those who had not passed products of conception on hospital premises were given an appointment at the FPC for insertion after a follow-up appointment with the abortion service had excluded ongoing pregnancy.

Prior to discharge home, nursing staff of the medical abortion unit telephoned the FPC and booked the next slot at one of the intrauterine insertion clinics that was convenient for the woman. Women were given written instructions on the date and time of the appointment, the clinic address and details of public transport that served the clinic area. All women were advised to abstain from intercourse or to use an interim contraceptive method until IUD/IUS fitting had taken place. Details of the women who were expected to attend were then faxed to the FPC.

Although all women were screened for *Chlamydia trachomatis* prior to the abortion and treated if positive, it was agreed as part of the local fast-track protocol that all women should receive prophylactic antibiotics (azithromycin 1 g and metronidazole 1 g orally) immediately following IUD insertion at the FPC. This decision was based upon clinical judgement of the consultant medical staff, because of concern about remaining products of conception and the lack of existing data on infective morbidity with intrauterine method

insertion within the initial weeks post-medical abortion. A routine follow-up appointment at the FPC was arranged for women at 6 weeks post-insertion.

As little information is available on insertion of intrauterine contraception soon after medical abortion, this study was undertaken to evaluate our fast-track service in Edinburgh in terms of its popularity (numbers of women referred), attendance rates, interval to insertion and devices chosen. We also wished to determine the complication rates with insertion at this time.

Methods

This was a retrospective case note review of women referred through the fast-track system following EMA at the RIE for the period May 2007 to June 2009 inclusive. The numbers of women referred were determined from the FPC appointment lists. Case notes were subsequently reviewed to determine if women had attended for IUD/IUS insertion, which device was fitted, whether they attended the routine 6-week follow-up appointment and if a complication (expulsion, perforation or infection) had been documented. Limited demographic data were collected from women referred for fast-tracking including age, parity and postcode. The patient's postcode provided a Carstairs deprivation category.⁹ In addition, the FPC computer appointment database was checked to determine whether or not women had previously used the FPC. The gynaecology theatre records of the RIE were also checked to determine if any women who had been fast-tracked had subsequently undergone surgery to retrieve a translocated IUD/IUS. The Quality Improvement Teams at both the Department of Reproductive Health, RIE and the FPC approved this audit project.

Statistics

Data were entered into a database using Microsoft Excel™. Comparisons between attenders and non-attenders were made using GraphPad InStat™ software (GraphPad Software, La Jolla, CA, USA) using the Chi square (χ^2) test, *t*-test or Mann–Whitney *U*-test as appropriate. Statistical significance was defined as $p < 0.05$.

Results

Attendance at FPC

A total of 237 women were referred from the medical abortion unit for intrauterine contraception using the fast-track system. Of those referred, 53% ($n=126$) attended. The demographics of women referred via the fast-track system are shown in Table 1. Women who attended were significantly older than those who did not attend with a mean age of 30 years for attenders compared to 27 years for non-attenders ($p=0.003$). Women who attended were also significantly more likely to have previously been a patient at the FPC ($n=45$; 36%), than those who did not attend ($n=10$; 9%; $p<0.001$), and were less likely to come from a severely deprived area ($p=0.037$) (Table 1). The proportion of parous women was similar between groups.

Table 1 Demographics of women who attended and who did not attend the family planning clinic for intrauterine contraception via the fast-track system

Demographic characteristic	Attender (n=126)	Non-attender (n=111)	p
Age (years)			
Mean age (SD)	30 (6.4)	24 (5.6)	
Range	18–46	17–45	0.003
Parity [n (%)]			
Previous birth	77 (61)	55 (50)	0.385
No previous birth	39 (31)	37 (33)	
Unknown	10 (8)	19 (17)	
FPC attendance [n (%)]			
Existing FPC patient	45 (36)	10 (9)	<0.001
New FPC patient	80 (63)	93 (84)	
Unknown	1 (1)	8 (7)	
Deprivation category score [n (%)]*			
Affluent (1–2)	25 (20)	14 (13)	0.0455
Intermediate (3–5)	94 (75)	64 (58)	
Deprived (6–7)	6 (5)	13 (12)	
Unknown	11 (9)	20 (18)	

FPC, family planning clinic; SD, standard deviation.

*Deprivation category score is an index of deprivation based upon Scottish postcodes.⁹

The median interval from medical abortion to IUD/IUS insertion was 21 (range 0–54) days. One woman had an IUS inserted at the FPC on the same day that she underwent a medical abortion at the RIE.

Contraceptive method

One hundred and thirteen of the 126 (90%) women proceeded to have an intrauterine method, of whom 57% (n=64) chose the IUS and 43% (n=49) chose an IUD. Nine of the remaining 13 women did not proceed to have an intrauterine method, but chose to have a progestogen implant (n=6), progestogen injectable (n=2) or combined oral contraceptive pill (n=1). The remaining four women left the clinic without any contraceptive method. These were women who attended in the first 6 months of the fast-track system being operational. In two cases, women had undergone a mid-trimester medical abortion and so did not fulfill the criteria for the fast-track protocol and were given appointments for insertion 4 weeks after treatment. In the remaining two cases, the staff were unfamiliar with the fast-track system and provided counselling about intrauterine contraception and scheduled an appointment for insertion, rather than fitting the device at that visit.

Follow-up

The 6-week follow-up appointment post-IUD/IUS insertion was attended by 55/113 (49%) women. Of these women, there were four (7.2%) cases of complete or partial expulsion. There were a further four (7.2%) cases of suspected infection within the 6 weeks, where women had been treated with oral antibiotics by

their general practitioners (GPs). A further two (3.6%) women who attended this follow-up appointment requested removal of the device (IUD=1, IUS=1) due to unacceptable bleeding patterns. There were no known cases of uterine perforation (based on FPC records and RIE gynaecology theatre log books).

Discussion

The main finding of this study was that only just over half of women fast-tracked for intrauterine contraception following an EMA actually attended. This finding is consistent with that of a study from the USA that reported that 40% of women scheduled for post-abortion intrauterine contraception insertion did not return for the procedure.¹⁰ While this could be viewed as being better than nothing, the high non-attendance rate does give cause for concern. One such concern is that women requesting an abortion may feel that they are pressurised to accept a method of contraception that they have no intention of using. However, previously reported research from the present hospital's abortion service showed that 95% of women surveyed anonymously did not feel under pressure to use a contraceptive method and most valued the opportunity to have a discussion about future contraception.¹¹ It is also possible that since the method cannot be provided immediately at the time of the abortion, the motivation to return for insertion diminishes.

There is evidence from the USA that an additional visit required for insertion of intrauterine contraception after abortion is the main factor that deters women from attending.^{10 12} Although the median waiting time to insertion of 3 weeks could be considered as substantial, this may have been influenced by factors that we could not take account of within the design of the study, such as some women choosing a later date or changing the date of the appointment. Furthermore, some women will have required a follow-up at the RIE to confirm successful abortion before insertion of the IUD/IUS could be arranged. Nevertheless, this 3-week wait compared favourably with the corresponding 6-week waiting time during the study period for women attending the FPC requesting an intrauterine method.

A significant finding in our study was that women who had already attended the FPC in the past were more likely to attend for insertion. While this may suggest that unfamiliarity with a new clinic setting may be a barrier to attending for post-abortion intrauterine contraception, it may also suggest that uptake of intrauterine contraception might be greater if an EMA treatment service could be offered within a specialist contraceptive service such as the FPC. Research from the Department of Health has already shown that the provision of EMA outside hospital settings is acceptable to women in the UK.¹³

A Cochrane review of insertion of intrauterine contraception immediately after surgical abortion or

surgical management of miscarriage concluded that immediate insertion of the IUS/IUD was safe and practical and was associated with higher continuation rates compared to insertion at a later date.¹⁴ However, similar data regarding insertion of an IUD/IUS either immediately or soon after medical abortion are limited. Given that expulsion of the pregnancy and bleeding may occur more gradually with medical abortion than with surgical vacuum aspiration, it could be hypothesised that the risk of IUD/IUS expulsion or infection could be increased if insertion occurred in the presence of significant products of conception following medical abortion.

A case note review cannot calculate the true rate of complications, since women who did not attend follow-up may have attended their GP with a problem. However, almost half of the women who had IUD/IUS insertions did return for follow-up and among them there were few complications and none were considered serious. A recent prospective observational study of IUD/IUS insertion in 118 women after medical abortion in the USA also showed low complication rates when devices were inserted at an average of 8 to 9 days post-abortion, with no perforations and an expulsion rate of 4.1% reported.¹⁵ These data, together with the findings of the present study, should be reassuring for clinicians who may be apprehensive about IUD/IUS insertion soon after EMA. Clearly, however, larger research studies are required to provide more accurate estimates of the risk of complications with IUD/IUS insertion in the weeks following EMA, as well as information on the continuation rates. There is also a need for more qualitative research to better understand the barriers that prevent women attending for IUD/IUS insertion after medical abortion.

Given the findings of international studies that repeat abortion rates are lower in women who use an intrauterine method following abortion, services should aim to provide intrauterine contraception for women at the time of abortion if they request this.⁶⁻⁸ In our study, non-attenders for IUD/IUS insertion were slightly younger and more likely to come from areas of severe deprivation, highlighting the need for future efforts to provide intrauterine contraception immediately following medical abortion to be focused on these groups. Provision of insertion at the time of medical abortion requires experienced clinicians to be available at the time that abortion occurs. But even if trained staff are readily available, the acceptability of insertion at this time may be limited, particularly if bleeding is heavy, there is pain or if women are keen to leave the abortion unit to return home. Furthermore, since increasing numbers of women undergoing an EMA are now choosing to leave soon after treatment and to expel the pregnancy at home (often termed early medical discharge),¹⁶ the opportunity to insert an intrauterine method on the day of expulsion of the pregnancy may unfortunately diminish. Thus while a fast-track

system may result in lower attendance rates than might be wished, it may remain the best strategy to enhance uptake of intrauterine contraception following EMA.

Competing interests None.

Provenance and peer review Not commissioned; externally peer reviewed.

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