

# Self-reported contraceptive use and satisfaction among women accessing telemedicine medical abortion at the onset of the COVID-19 pandemic at 3–6-month follow-up

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## ABSTRACT

**Background** Changes in legislation due to COVID-19 led to the introduction of telemedicine for early medical abortion (EMA) at home in Scotland. The opportunity to provide contraception at presentation may be more limited with this model of care. We compared contraceptive use immediately post-abortion with 3–6 months later to determine if contraceptive needs were being met.

**Methods** We contacted 579 women by telephone call or text message who agreed to be involved in a service evaluation of telemedicine EMA in NHS Lothian at 3–6 months post-abortion. A research nurse administered a questionnaire on the women's current contraception use. The research nurses also offered women support in switching or initiating contraception via the abortion service if desired.

**Results** The response rate to the contact was 57% (331/579). Under a third of the women (30%, 98/331) were using the progestogen-only pill (POP) at 3–6 month follow-up, a significant decrease ( $p < 0.00$ ) compared with 65% (215/331) who were provided with POP at the time of abortion. Thirty-nine women (12%) were provided with contraception through this telephone contact, leading to a significant increase in the proportion using subdermal implants, the progestogen injectable or intrauterine contraception.

**Conclusions** This study shows that there was a decrease in the use of the POP 3–6 months after telemedicine EMA during the COVID-19 pandemic. Telephone contact at 3–6 months to facilitate obtaining contraception may be a

## KEY MESSAGES

- ⇒ Changes in legislation due to COVID-19 led to the introduction of telemedicine for early medical abortion (EMA) at home in Scotland. Access to long-acting reversible contraception was also restricted.
- ⇒ This study shows that there was a decrease in use of progestogen-only pill at 3–6 months after telemedicine early medical abortion.
- ⇒ Telephone contact following abortion to facilitate contraception provision may improve access to the most effective contraceptive methods and thus could be further investigated

promising strategy to improve access to effective methods with this model of abortion care.

## INTRODUCTION

In response to the COVID-19 pandemic, legislation was introduced in Scotland on 31 March 2020 to permit use of mifepristone for medical abortion in a patient's home as opposed to a clinical setting.<sup>1</sup> Guidelines from the Royal College of Obstetricians and Gynaecologists recommended medical abortion at home following a telemedicine consultation and basing gestation on last menstrual period rather than ultrasound.<sup>2</sup> This has implications for the provisions of contraception as the implant and progestogen-only injectable can be initiated at the time of

medical abortion but this opportunity is lost through a telemedicine model due to loss of face-to-face contact. Access to long-acting reversible contraception (LARC) – intrauterine methods, implants and progestogen-only injectables – was restricted in all settings during the first phase of the COVID-19 lockdown as initiation of LARC was not considered an essential service.<sup>3</sup> A survey of members of the Faculty of Sexual and Reproductive Health (FSRH) found that 77% of general practitioners (GPs) and 64% of sexual and reproductive healthcare (SRH) specialists had ended or limited their provision of even essential services.<sup>4</sup> As over half of women will resume sex within 2 weeks of abortion, it is important that they have adequate contraception to prevent subsequent unwanted pregnancies.<sup>5</sup>

This study was carried out in NHS Lothian, which comprises Edinburgh and the surrounding region, and where just over 2600 abortions are carried out each year.<sup>6</sup> The abortion service in this region moved to telemedicine provision of early medical abortion (EMA) at home on 1 April 2020.<sup>7</sup> This service was based at the Chalmers Centre which is a fully integrated SRH service in Edinburgh. Women had a telephone consultation with a clinician to assess the need for an ultrasound scan and eligibility for EMA and then collected a ‘treatment pack’ containing mifepristone and misoprostol from the clinic or received one via a courier.<sup>7</sup> Post-abortion contraception was also discussed during the telephone consultation and was provided (at no cost) if desired. The contraceptive methods that could be provided in the pack were condoms or a 6-month supply of contraceptive pills. Women wishing to use a LARC method were offered a bridging method of contraception (pills or condoms) and then booked an appointment in a LARC clinic 2 weeks after their abortion. Women were also able to call to book LARC appointments with the abortion service themselves, at a later date.<sup>7</sup> This quality improvement report evaluates contraception use and attitudes at 3–6 months following telemedicine EMA under 12 weeks’ gestation. It was conducted as part of a service evaluation of the telemedicine model of EMA provision.<sup>7</sup>

## METHODS

Between 1 April 2020 and 9 July 2020, 663 women had telemedicine medical abortions at home; 579 of these agreed to take part in a health services evaluation and were contacted for our survey.<sup>7</sup> Research nurses administered a questionnaire (see online supplemental item 5) via either telephone call or text message, according to the woman’s preference, between 19 October and 2 November 2020. Women were contacted 3–6 months post-abortion as they had been provided with a 6-month supply of contraception (in the case of short-acting methods) and thus could have feasibly been using contraception provided by the abortion service at the time of survey. A second attempt at contact was made with women who did not initially respond. This

represents a single time-point contact for each patient between 3 and 6 months following their EMA.

The survey questions asked about the current method of contraception and where it was obtained, a satisfaction rating on the current method of contraception, and whether they wished to continue using that method. Women were asked if they had used emergency contraception or been pregnant again since their abortion. We elicited participant opinions on whether they would in the future consider accessing contraceptive pills from a pharmacy or ordering them online. Additionally, research nurses offered to facilitate access to any method of contraception at the abortion clinic. The data on contraception provided by the abortion centre (including short-acting methods via the treatment packs and LARC via appointments after the abortion) was obtained from the parent health service evaluation.<sup>7</sup> Further information on the telemedicine abortion model used by the service is available in online supplemental item 1).

## Statistics

Data were transcribed from paper survey forms into a Microsoft Excel file that was held on a secure National Health Service (NHS) server. In analysing the results, we used demographic data collected from the women at baseline as part of the service evaluation,<sup>3</sup> including Scottish Index of Multiple Deprivation (SIMD), age, previous pregnancies and previous abortions. SIMD is a composite score of deprivation in Scotland, ranked from most deprived (SIMD 1) to least deprived (SIMD 5).<sup>8,9</sup> These data were compared with data on the contraception provided at the time of abortion.<sup>7</sup>

For the purposes of analysis, women who were using hormonal or intrauterine contraception were categorised as using ‘more effective contraception’, as these contraceptive methods have typical use effectiveness rates over 90%. Those using condoms or no method of contraception were therefore classed as using ‘less effective’ methods of contraception.<sup>10</sup> This is a simplified version of the classification used by the World Health Organization (WHO) to categorise contraceptive methods by effectiveness.<sup>11</sup> Comparison of contraception at the time of follow-up was made with data on the contraception provided at the time of abortion.<sup>7</sup> All statistical tests used were Chi-square tests. Statistical significance was defined as  $p < 0.05$ .

## Approvals

The service evaluation project was approved and monitored by the Lothian Sexual and Reproductive Health Service Quality Improvement Team. It was reviewed by the local NHS Research Ethics Committee Scientific Officer and deemed not to require ethical approval.

## Patient and public involvement

No patients nor members of the public were involved in the design of this study.

**Table 1** Demographics of women responding to the contraception survey 3–6 months after telemedicine early medical abortion

Characteristic	Responded to survey (n (%))	Did not respond to survey (n (%))	P value
Age (years)			
Total	331 (100)	248 (100)	0.12
16–17	11 (3)	3 (1)	
18–25	139 (42)	104 (42)	
26–30	71 (22)	62 (25)	
31–35	54 (16)	50 (20)	
36–50	56 (17)	29 (12)	
SIMD			
Total	329* (100)	248 (100)	0.03
1	50 (15)	50 (20)	
2	89 (27)	85 (34)	
3	50 (15)	40 (16)	
4	60 (18)	32 (13)	
5	80 (24)	41 (17)	
Previous pregnancies (n)			
Total	331 (100)	248 (100)	0.01
0	137 (41)	76 (31)	
1	59 (18)	42 (17)	
2	38 (12)	35 (14)	
3	49 (15)	35 (14)	
4+	48 (15)	60 (24)	
Previous abortions (n)			
Total	331 (100)	248 (100)	0.01
0	221 (67)	147 (59)	
1	84 (25)	64 (26)	
2	25 (8)	30 (12)	
3+	1 (0)	7 (3)	
Previous births (n)			
Total	331 (100)	248 (100)	0.03
0	188 (57)	110 (44)	
1	44 (13)	46 (19)	
2	67 (20)	62 (25)	
3	28 (9)	22 (9)	
4+	4 (1)	8 (3)	

The Scottish Index of Multiple Deprivation (SIMD) is a composite score of deprivation in Scotland, ranked from most deprived (SIMD 1) to least deprived (SIMD 5).  
\*SIMD data unknown for two women.

## RESULTS

### Demographics

There was a response rate of 57% (331/579). Not all respondents answered all the questions in the questionnaire so the denominator varies between outcomes. Demographics of responders and non-responders are shown in [table 1](#). There was a significantly greater proportion of nulliparous women in the group that responded to follow-up compared with non-responders ( $p=0.01$ ). Women who did not respond to the survey

**Table 2** Contraception use following telemedicine early medical abortion at 3–6 month follow-up and after offer of further contraception

Contraceptive method	Contraception provided following abortion (n (%))	Contraception use self-reported at 3–6 month follow-up (n (%))	Contraception use following offers of contraception at 3–6 month follow-up (n (%))
Total (all methods)	329* (100)	329* (100)	329* (100)
Combined oral contraceptive	24 (7)	34 (10)	35 (11)
Combined hormonal contraceptive patch	10 (3)	6 (2)	6 (2)
Progestogen-only pill	215 (65)	98 (30)	94 (28)
Pill (unsure which)	0 (0)	8 (2)	8 (2)
Copper-bearing intrauterine device	11 (3)	12 (4)	17 (5)
Levonorgestrel-releasing intrauterine device	14 (4)	19 (6)	27 (8)
Implant	10 (3)	19 (6)	23 (7)
Progestogen-only injectable	7 (2)	8 (2)	10 (3)
Condoms	25 (8)	65 (20)	56 (17)
No method	13 (4)	60 (18)	53 (16)

\*Excludes two women who did not answer the question.

were significantly more likely to live in more deprived areas than responders ( $p=0.03$ ). This group was also more likely to have been pregnant previously ( $p=0.01$ ) and to have had a previous abortion ( $p=0.01$ ) and had more previous births ( $p=0.03$ ) than the women who did answer the survey. The number of days between taking misoprostol and completing the survey ranged between 115 and 200 days, with a median of 166 days. There was no difference in response rates according to the length of time between the abortion and the survey being taken (online supplemental item 2). All those who agreed to take part in this health service evaluation are cisgender women.

### Contraceptive use

[Table 2](#) shows contraceptive use. There was a significant decrease in the proportion of women using the progestogen-only pill (POP) between the time of EMA (215/329, 65%) and when the survey was taken (98/329, 30%;  $p<0.00$ ). Of the 117 women who stopped using the POP, 46 stopped using contraception and 37 switched to condoms, so that 71% (83/117) switched to a less effective method than their previous one. In total, 47 (47/329, 14%) women stopped using contraception.

There were 21 women who reported using emergency contraception between the time of their abortion and the time that they took the survey. All used pills rather than intrauterine methods, and all were unable to recall which pill they took.

As regards where the women had obtained the contraception that they were using at the time they

**Table 3** Contraception provided through follow-up survey 3–6 months after telemedicine early medical abortion

Contraception outcome	n (%)
Total	39 (100)
Progestogen-only pill	18 (46)
Levonorgestrel-releasing intrauterine device	8 (21)
Copper-bearing intrauterine device	5 (13)
Subdermal implant	4 (10)
Combined oral contraceptive	2 (5)
Progestogen-only injectable	2 (5)

took the survey, 53% (139/264) were using contraceptive supplies that had been provided by the abortion service. A further 24% (62/264) received their current method of contraception from their GP and 1% (3/264) purchased their current contraception from an online pharmacy. 23% (60/264) indicated that they had obtained contraception from a source other than the options provided (online supplemental item 3). Some 73% (230/317) of women reported receiving contraceptive supplies as part of their EMA treatment packs, and 81% (169/230) reported using these supplies.

#### Provision of contraception through follow-up survey

Thirty-nine women were successfully provided with contraception after accepting the offer from the research nurses to facilitate this provision. The methods supplied are shown in table 3. Nineteen of the women who accepted further contraception initiated LARC methods, resulting in a significant increase in the proportion of women using LARC from 18% (58/329) to 23% (77/329) ( $p=0.00$ ). Additionally, 16/124 women (13%) who were using condoms or no contraception obtained more effective methods of contraception through the research nurses.

#### Reasons for not using contraception

Women who indicated that they were not using contraception were asked the main reason for this, from a selection of options. The most common reasons cited for not using contraception were adverse effects or having no need for contraception (table 4).

#### Satisfaction with contraceptive methods

Women were asked to rate their satisfaction with their current method of contraception on a five-point Likert scale ranging from 'very dissatisfied' to 'very satisfied'. Across all contraceptive methods, 34% (86/253) of women who answered this question were 'very satisfied' and 22% (55/253) were 'satisfied'; 28% (71/253) were 'neutral' and the remainder were 'dissatisfied' (25/253, 10%) or 'very dissatisfied' (16/253; 6%). A significantly higher proportion of those who were using condoms or not using contraception (14%,

**Table 4** Reasons given for not using contraception at follow-up survey 3–6 months after telemedicine early medical abortion

Reason given	n (%)
Total	44 (100)
Adverse effects	12 (27.3)
No need	12 (27.3)
Awaiting initiation of new method	5 (11.4)
Trying for a baby	4 (9.1)
Too difficult to obtain	3 (6.8)
Partner is planning a vasectomy	2 (4.5)
Currently pregnant	1 (2.3)
Other *	5 (11.4)

\*Cannot use contraception, chooses not to use, prefers to use emergency contraception if required.

10/70) indicated that they were 'very dissatisfied' compared with women who were using hormonal or intrauterine contraception (3%, 6/183;  $p=0.01$ ).

Over two-thirds of women (70%, 192/276) indicated that they would like to continue their contraceptive method. However, significantly more of those using hormonal and intrauterine contraception wanted to continue using their contraception (84%, 158/189) compared with those using condoms or no contraceptives (38%, 33/87;  $p<0.00$ ).

#### Future options for contraception provision

Over half of respondents (54%, 171/318) said that they would consider buying contraceptive pills from a community pharmacy if this were an option. Some 61/115 (53%) of women indicated that this was because they prefer another method, 32/115 (28) indicated that the issue was money, 13/115 (11%) felt it might not be safe and 5/115 (4%) were unsure what to buy without professional advice. When asked whether they would consider ordering contraceptive pills from an SRH service online at no cost, 78% (247/318) said that they would consider doing so (online supplemental item 4).

## DISCUSSION

The study showed that there was decrease in use of POP by 3–6 months post-telemedicine EMA during the COVID-19 pandemic, and that 71% of women who stopped using POP switched to less effective methods or stopped using contraception. As part of the treatment pack for EMA, two-thirds of women were provided with POP, but at 3–6 months only one in five women were using this method. Non-use of contraception was mostly because the woman no longer required contraception or had stopped due to side effects. It is difficult to know whether these findings are common to contraception use following EMA in general, due to a general lack of published data on longitudinal post-abortion contraception

use. Furthermore, these findings might be different outside the context of telemedicine EMA and the COVID-19 pandemic. However, it is noteworthy that 73% of women reported being provided with some form of contraception and 81% reported using this, demonstrating a successful aspect of the telemedicine abortion service.

The telephone contact from the research nurses to discuss contraception did increase the proportion of women using LARC, which suggests that telephone contact at this stage could be a useful future option to help women access these methods. A number of women using no contraception or condoms obtained more effective methods via this contact. Indeed, there is also some existing evidence from the UK that offering a contraception consultation around the time of, but separate from, the abortion appointment increases uptake of effective contraception.<sup>12</sup> Although telemedicine EMA means that the opportunity to be fitted with LARC at the time of the consultation is lost, this of course applies mainly to the contraceptive implant, since those choosing an intrauterine device (IUD) must wait until they have passed the pregnancy before the IUD can be inserted. In addition, it may still be possible to provide women who choose the injectable with a supply to self-administer, if they have used this method previously and are familiar with the injection technique.

Our survey identified that women viewed potential future options for contraception access favourably such as accessing contraceptive pills from a community pharmacist or ordering supplies from an SRH service online at no cost. Since this survey was conducted, the POP has now been approved to be sold in pharmacies without the need for a prescription.<sup>13</sup> In addition, online contraception from SRH services has already been trialled in parts of the UK with success, particularly in the age groups in which unplanned pregnancies are most common.<sup>14</sup>

This study provides novel data on the use of contraception at 3–6 months following telemedicine EMA and during the COVID-19 pandemic. The study is limited by the number of women lost to follow-up and by null responses to some questions; this limitation is linked to the long length of time between abortion and the follow-up survey. It is further limited by the participants self-selecting and is therefore unlikely to be representative of the whole group, particularly when considering the demographic differences described. The study is also in a single setting, reducing its generalisability. Furthermore, the changes experienced in accessing contraception during the first national lockdown due to COVID-19 may mean that the pattern of contraception use following telemedicine EMA is different to what it has been since the lifting of restrictions and in the future.

## CONCLUSIONS

This study demonstrates the potential success of contraception provision through telemedicine abortion at home. In addition, it shows that there was a decrease in the use of the POP at 3–6 months after telemedicine EMA during the COVID-19 pandemic, with over two-thirds of women then switching to less effective methods. Further research into why women stopped using contraception or switched to less effective methods is necessary to ensure that adequate contraception is accessible following telemedicine abortion. Telephone contact at 3–6 months to facilitate obtaining contraception may be a promising strategy to improve access to effective methods with this model of abortion care.

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