Topic: Contraception after abortion

Contraception after first and second trimester abortion

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www.fptraining.org

August 2018
Topic: Contraception after abortion

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Background

**Important messages:**

- Ovulation can occur as early as 5 - 8 days after abortion
- 80-90% of women ovulate during the first cycle following an abortion
- Return to fertility after a surgical abortion does not differ from that following medical abortion
- More than 50% of women have sexual intercourse within 2 weeks after the induced abortion
- All this implies that contraception should be initiated soon

Additional information:

   
   **FIGO, 2007**

   **Aim:** Successfully reduce unsafe abortions:

   (1) **primary prevention of unintended pregnancy and induced abortion**;
   
   (2) secondary prevention to ensure the safety of an abortion procedure that could not be avoided;
   
   (3) tertiary prevention of further complications of an unsafe abortion procedure that has taken place already, through high-quality postabortion care;
   
   (4) **quaternary prevention of repeated abortion procedures through postabortion family planning counseling and contraceptive services.**


2. **Strategies for effective contraception after abortion**

   **FIGO INITIATIVE: Contraception following abortion and treatment of incomplete abortion**

   Recent evidence has shown that post abortion contraception should comply with two attributes to ensure maximum effectiveness in preventing a repeat unintended pregnancy and, possibly, a repeat safe or unsafe abortion. First, it should be provided before the woman leaves the healthcare facility where she received the abortion care, and second, preference should be given to long-acting reversible contraceptives (LARC).


VTE risk 1.6 fold during the first and second trimester of pregnancy, 8.8 fold during the third trimester. The OR is 84 during the first 6 weeks postpartum.


The incidence of VTE during pregnancy and puerperium have been reported in a number of studies, and the reported incidence varies considerably (ranging from 0.8 to 7.13 per 1000 pregnancies) The actual incidence is difficult to define for its rare frequency, differences in study design, lack of objective diagnosis in retrospective studies, different populations and variable usage of thromboprophylaxis.

The pooled incidence of pregnancy associated VTE was 1.4 per 1000 pregnancies, which was significantly higher than non-pregnant women of similar age (95% CI: 1.0–1.8%). The pooled incidence rate was 1.4‰ (1.0–1.8‰) for VTE, 1.1‰ (1.0–1.3‰) for deep vein thrombosis (DVT) and 0.3‰ (0.2–0.4‰) for pulmonary embolism (PE). The weighted proportion of VTE postpartum was 57.5%. During pregnancy: the proportions of VTE during the first, second and third trimester were 21.36, 22.69 and 55.95%, respectively, what emphasises how early relevant changes in the coagulation system occur.

The overall reported **VTE incidence rate ranged between 0.82 and 1.99 per 1000 deliveries/pregnancies/women**. Significant heterogeneity was detected among the included studies. Therefore, the random-effects model was applied, resulting in a **pooled incidence of 1.2 per 1000 deliveries** (95% confidence interval [CI] 0.6–1.8). Although most studies showed that women experience a higher risk of VTE during the postpartum period than during pregnancy, the meta-analysis revealed that there is no difference in the VTE incidence rate between these two periods. During pregnancy, there is a significantly higher risk of VTE in the third trimester than in the other trimesters.


Using data from a large population-based cohort, we report a relatively low rate of first VTE in pregnancy; however, this rate was still much higher than that seen in the time outside pregnancy, with a noticeably raised risk in the first 3 weeks postpartum.

- **VTE Risk during 3. trimester**: 6 fold in compared to nonpregnant women [Incidence Rate Ratio (IRR) = 6.1; 95% confidence interval, 4.7–7.9].
- **VTE Risk during 2. trimester**: Incidence Rate Ratio (IRR) = 2.1;
- **VTE Risk during 1. trimester**: Incidence Rate Ratio (IRR) = 1.6;
- **VTE Risk during first 6 weeks**


- Women should be advised that any method of contraception can be safely initiated immediately after an uncomplicated abortion.


- The abortion assessment visit (when women attend to request an abortion) is an excellent opportunity for clinicians to discuss a woman’s future fertility intentions and use of effective contraception after abortion. **It is important that women are provided with information and receive counselling to enable them to make informed choices on suitable contraceptive methods after abortion** (Evidence level 4). Whenever contraceptive counselling is provided, care should be taken to ensure, that women do not feel under pressure to choose a method of contraception (Good Practice Point based on the clinical experience of the guideline development group).


The offer of contraceptive counselling and the provision of a full range of methods should be available to women presenting for TOP, aiming for a balance between reducing barriers to the most effective methods while respecting the choices of women whose preferences are for other methods, for no method, or for the receipt of a method at some later time. An acknowledgement of this balance is critical to setting realistic and patient-centered standards of care, and to shifting the focus from creating uptake quotas to removing barriers to choice for all methods. The frequency with which women obtained their chosen methods suggests that same-day provision, lack of cost barriers, and counselling that elicits and accepts women’s preferences play important roles in ensuring a high quality of service.
1. Medical eligibility criteria for contraceptive use. 5th ed. World Health Organization 2015


Women who started taking COCs immediately after first-trimester medical or surgical abortion did not experience more side-effects or adverse vaginal bleeding. Limited evidence on women using the CVR immediately after first-trimester medical or surgical abortion indicated no serious adverse events and no infection related to CVR use during 3 cycles of follow-up post-abortion.


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- VTE Risk during 2. trimester: Incidence Rate Ratio (IRR) = 2.1;
- VTE Risk during 1. trimester: Incidence Rate Ratio (IRR) = 1.6;
- VTE Risk during first 6 weeks postpartum: 22-fold increase in risk,

For woman at risk to not come back or and would not start the other two options, balance against VTE risk in a new pregnancy. Take into account if she has additional risk factors for VTE. If she will come back consider to start POP and change thereafter to CHC.
When to initiate contraception after first trimester Medical abortion?

<table>
<thead>
<tr>
<th>Contraceptive method</th>
<th>Medical abortion</th>
<th>Comments</th>
<th>Surgical Abortion</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMPA</td>
<td>On day of mifepristone intake</td>
<td>The timing of initiation of DMPA on the initial visit for medical abortion is satisfactory to women, but its influence on medical abortion efficacy requires further investigation.*</td>
<td>On day of procedure</td>
<td>No adverse effects</td>
</tr>
<tr>
<td>Implant (ETG)</td>
<td>On day of mifepristone intake</td>
<td>Women should be advised that IMPLANTS can be safely initiated at the time of mifepristone.</td>
<td>On day of procedure</td>
<td>No adverse effects</td>
</tr>
<tr>
<td>IUD-Cu LNG-IUS</td>
<td>On the day of the confirmation of complete abortion</td>
<td>No negative impact on bleeding or pain; IUD expulsion rates seem to be higher after immediate than after delayed insertions</td>
<td>On day of procedure possible but higher expulsion risk</td>
<td>No negative impact on bleeding or pain</td>
</tr>
</tbody>
</table>

* Initiation of DMPA after confirmation of complete abortion (5-9 days after mifepristone treatment) might be of advantage to avoid continuation of pregnancy.

1. Medical eligibility criteria for contraceptive use. 5th ed. World Health Organization, 2015
2. Contraception After Pregnancy. Faculty of Sexual & Reproductive Healthcare (FSRH), 2017

Provision of highly effective contraceptive methods at the time of abortion has distinct advantages as

(1) the woman is known not to be pregnant,
(2) her motivation to use effective contraception may be high
(3) she is already accessing healthcare services.

This is particularly relevant for methods such as the progestogen-only implant (IMP) and intrauterine contraception (IUC), which require the availability of a skilled clinician for insertion of the method.

The provision of long-acting reversible contraception (LARC) at the same time as abortion is both convenient and highly acceptable to women who wish to initiate LARC methods, avoiding the need for an extra visit which has been identified as a barrier to the uptake of LARC after abortion.

**Initiation of DMPA after medical abortion**


Multinational randomized trial in women undergoing medical abortion who wanted DMPA to administration either with mifepristone (Quickstart group) or after the abortion (Afterstart group). Were included 461 participants with pregnancy durations of 75 days or less. Depot medroxyprogesterone acetate administration with mifepristone did not appreciably increase the risk of surgery after medical abortion but **did increase the risk of ongoing pregnancy**. It enhanced patient satisfaction, but we found no evidence that it decreased 6-month risk of repeat pregnancy.
Etonogestrel implant after abortion: Immediate vs. delayed insertion


476 women undergoing medical abortion (<9 weeks) randomised into receiving IMP either with mifepristone (Quickstart group, n=236) or after the abortion was complete (Afterstart group, n=240), showed no differences in success of the medical abortion. The study found that 3.9% and 3.8% of women in the Quick-start and After-start groups, respectively, had surgery to complete the abortion. The median days of bleeding was slightly but significantly higher in the Quick-start group than in the After-start group (12 vs 10, p=0.03). The incidence of heavy bleeding was nearly identical in both groups. At enrollment, significantly more participants in the Quick-start group than in the After-start group were satisfied with their group assignments (187/236 [79%] compared with 129/240 [54%], respectively; P<.001). Insertion of etonogestrel implants with mifepristone did not appreciably increase medical abortion failure risk.


A randomised-controlled included 538 women undergoing EMA (<9 weeks) randomised to implant insertion 1 hour after mifepristone (immediate group, n=277) or at a follow-up 2–3 weeks later (delayed group, n=261). There was no significant difference in the efficacy of medical abortion in the immediate insertion group and the delayed insertion groups (94.2% vs 96.0%). However, a significantly (p<0.001) higher proportion of women in the immediate group received the IMP (98.9% insertion) compared to the delayed group (71.6% insertion). In addition, the study reported significantly fewer unintended pregnancies at 6 months in the immediate group compared to the delayed group (0.8% vs 3.8%, p=0.018). The study findings (which may be more relevant to the UK setting) suggest that IMP inserted on the day of mifepristone is safe, preferred by women, does not affect efficacy of medical abortion, but is associated with higher uptake and fewer subsequent unintended pregnancies than insertion several weeks later.

IUD insertion after abortion


Where identified 12 trials most of which are of moderate risk of bias involving 7,119 participants which described random assignment. Five trials randomised to either immediate or delayed insertion of IUD. One of them randomised to immediate versus delayed insertion of Copper 7 showed immediate insertion of the Copper 7 was associated with a higher risk of expulsion than was delayed insertion (RR 11.98, 95% CI 1.61 to 89.35, 1 study, 259 participants); the quality of evidence was moderate. Moderate quality of evidence also suggests that use and expulsion of levonorgestrel-releasing intrauterine system or CuT380A was more likely for immediate compared to delayed insertion risk ratio (RR) 1.40 (95% CI 1.24
to 1.58; 3 studies; 878 participants) and RR 2.64 (95% CI 1.16 to 6.00; 3 studies; 878 participants) respectively. Another trial randomized to the levonorgestrel IUD or Nova T showed discontinuation rates due to pregnancy were likely to be higher for women in the Nova T group. (MD 8.70, 95% CI 3.92 to 13.48; 1 study; 438 participants); moderate quality evidence. Ongoing use at 6 months was greater in the immediate insertion group compared to the delayed insertion group (RR 1.40, 95% CI 1.24–1.58). The analysis also showed a three-fold increase in risk of pregnancy in the delayed group compared with the immediate insertion group, although this was not statistically significant (RR 2.70, 95% CI 0.8–8.33). Risk of infection of the upper genital tract was similar for the two groups (OR 1, 95% CI 0.33–3.07).


IUC insertion immediately after surgical abortion is not associated with an increased risk of adverse outcomes compared with use of other contraceptive methods or with no IUC insertion after abortion. It also found no increased risk of adverse outcomes compared with IUC insertion at times other than immediately after abortion. IUC expulsion rates, while generally low, were higher in insertions performed after late first-trimester surgical abortions compared with those done after early first-trimester surgical abortions. Expulsion rates were also higher with IUC insertions performed after second-trimester surgical abortions compared with first-trimester surgical abortions.


Early insertion of IUC after medical abortion is safe and well tolerated by the patients. No increased incidence of expulsion, uterine perforation, pelvic infection, or heavy or prolonged bleeding, was found to be associated with early compared to delayed IUC insertion. The amount of post abortion bleeding was reduced in women with insertion of a LNG-IUS compared to women with Cu-IUD. No single factor such as difficult insertion, endometrial thickness, HCG-levels, bleeding, type of IUC, age, or parity could predict IUC expulsion.


The total expulsion rates were similar between the groups, but partial expulsion occurred more often in the immediate insertion group: during the 1-year follow-up the total LNG-IUS expulsion rate was 3 (2.3%) in the immediate-insertion group compared with 3 (2.3%) in the delayed insertion group (RR 0.98, 95% CI 0.20–4.79, P = 1.00), and partial expulsion rates were 27 (20.3%) versus 9 (6.9%) (RR 2.95, 95% CI 1.45–6.04, P = 0.002) (ITT analysis), respectively.


Women with thicker endometria 1 week later after medical abortion were slightly more likely to expel the copper IUD and that expulsions were unlikely with thin endometria. The endometrial thicknesses overlapped considerably between the women who retained or expelled the IUD, and our analysis did not find a clear cutoff when expulsion became predictable. Most women
did not expel the IUD, even with thicker endometria. We found it compelling that a participant with an endometrial thickness of 27 mm retained her IUD. After medical abortion, the risk of IUD expulsion increases with thicker endometria and lower baseline position. Since no clear cutoffs emerged in the analysis and expulsion remained uncommon even with thicker endometria, we do not recommend restricting IUD insertion based on ultrasound data.


Early insertion following a medical termination of pregnancy (MTOP) is safe, and the rate of IUD expulsion is low. Most adverse events possibly delaying IUD insertion occur early. Based on timing of adverse events in the control group, IUD insertion approximately 2 weeks after completed MTOP seems optimal.

In a randomised trial to compare early and delayed IUD insertion following medical abortion (Ref 3), the authors explored whether endometrial thickness and initial IUD position were associated with IUD expulsion. Women who expelled their IUD \( (n=15) \) had slightly thicker endometria \( (p=0.007) \) and slightly lower baseline IUD positions \( (p=0.03) \) than those who retained their IUD, but no clear cut-offs emerged in the receiver-operating characteristic curve analysis.
When to initiate POC contraception after second trimester Medical abortion

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<td>On day of mifepristone intake or after confirmation of complete abortion</td>
<td>Insertion at day of mifepristone intake possible, according to WHO-Criteria. No study data available for second trimester abortion.</td>
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When to initiate CHC after second trimester Medical / surgical abortion

Balance risks and benefits before deciding when to start CHC

- A next pregnancy is associated with a potentially higher VTE risk, than immediate start of CHC
- With second trimester abortions the VTE risk increases up to 2-fold in a healthy population
- In reliable patients who want to initiate CHC as contraceptive method after late abortion, it can be discussed to start a POC for 4-6 weeks and thereafter switch to CHC

After first trimester abortion the VTE risk is less elevated
Contraception after abortion: Summary

- Fertility returns very quickly after abortion
- Most contraceptive methods can be started immediately after both medical and surgical abortion.
- VTE risk increases over time during pregnancy and is around twofold during the second trimester of pregnancy. It is also elevated after abortion.
- Therefore immediate start of CHC requires careful balance of risks and benefits, especially after second trimester abortion.
- In reliable women POP could be used for 4-6 weeks before starting a CHC.
- IUD insertions should not be performed before confirmation of complete abortion.
- Immediate start of DMPA on day of misoprostol is associated with a lightly higher rate of pregnancy continuations.