Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.
Abortion care in the time of COVID-19: an illustration of how to adapt medical care during a pandemic

Kathryn Parker

Abstract
Shortly after the first lockdown was announced in March 2020, a comprehensive guideline was released by the Royal College of Obstetrics and Gynaecologists documenting the changes that were acceptable to enable this essential service to continue to provide care to women. Abortion care providers had to act quickly to adapt their services; increasing the use of telemedicine and reducing the number of visits to hospitals and clinics in order to reduce risk to women requesting termination of pregnancy and making safe abortion accessible. Important changes to legislation were paramount in making this possible, as were changes to the tests done prior to an early medical abortion including omission of routine ultrasound scan and blood tests in low risk women. Medication to induce abortion along with analgesia and contraception were sent by post to eligible women to enable early medical abortion at home. Despite some initial concerns, studies have shown these changes to be safe and there is hope amongst abortion care providers that these changes could be here to stay.

Keywords abortion care; telemedicine; ‘pills by post’

Introduction
When the reality of the pandemic first struck and a strict lockdown was imposed in the UK in March 2020, a statement from the Royal College of Obstetricians and Gynaecologists stressed the importance of abortion care services to be treated as an essential service. A comprehensive guideline was released documenting the changes that were acceptable to enable this service to continue to provide safe care to women requesting termination of pregnancy both during and beyond the first lockdown.

Abortion care providers had to act quickly to adapt their services; increasing the use of telemedicine and reducing the number of visits to hospitals and clinics in order to reduce risk to women requesting termination of pregnancy and making early medical abortion safe and accessible. A definition of early medical abortion is given in Box 1.

Definition of early medical abortion
- Early medical abortion (EMA) is a two stage process to terminate a pregnancy and is carried out before 10 weeks gestation.
- The first drug, mifepristone, is an anti-progestogenic steroid which sensitises the myometrium to prostaglandin induced contractions and ripens the cervix. 200 mg is given orally.
- The second drug, given 24–48 hours later, is misoprostol, a synthetic prostaglandin analogue that causes uterine contractions. The dose for under 10 weeks is 800 mcg and can be given per vagina, by mouth, by buccal or sublingual administration. A second dose of 400 mcg can be given 3–4 hours later if no bleeding has occurred.

Box 1

Changes in legislation
In the week following the first national lockdown temporary amendments were made to the Abortion Act enabling greater access to abortion care during the pandemic. Firstly, it became legal that consultations for abortion could be provided remotely using telemedicine and secondly, that both drugs used in early medical abortion could be taken in the women’s home. Previously, mifepristone had to be administered in a hospital or registered clinic following a medical consultation.

Evidently these changes were paramount in providing access to safe early medical abortion for women during the initial strict lockdown, and have continued to be a welcome change for abortion care providers as the restrictions have lifted. Currently the amendments to the law are in place until March 2022 (2 years after they were put in place) or until the end of the pandemic. A scoping consultation looking at the impact and experience, benefits, risks and evidence base was carried out between November 2020 and February 2021 to help determine if these measures should remain in place after the pandemic ends.

Telemedicine
Although the use of telemedicine has been increasing over the past few decades the pandemic provided a unique opportunity to embrace its use in order to improve access to essential services such as abortion care. Telemedicine is the use of technology to create live two way consultations between a patient and their healthcare provider and can include video or telephone consultations, texts, emails and mobile telephone apps. Telemedicine works particularly well in abortion care services; it improves access, enables shorter waiting times for appointments, and along with the removal of routine ultrasound and blood tests, reduces the number of visits to clinic.

Some have cited concerns with telemedicine in regard to barriers to access for those in poverty, with a lack of accommodation or support, and those in abusive relationships. However, abortion care providers have felt they have been able to identify women with safe guarding needs whilst using telemedicine and, in fact, telemedicine may improve disclosure of domestic abuse and allow greater access to care, as those in desperate situations would struggle to attend a clinic.

Kathryn Parker MBChB MRCOG Manchester University Hospitals NHS Foundation Trust, Manchester, UK. Conflicts of interest: none declared.
Worldwide many other specialities used telemedicine during the pandemic to improve access to safe healthcare whilst maintaining the mandated physical distancing. Patients who were self-isolating or were symptomatic with covid could be assessed to determine if they required face to face healthcare review. Whilst there are limitations in terms of physical examination, and some populations, such as the elderly, struggling with the technology, on the whole it has been accepted as a useful tool for the future. Reducing travel to and from hospitals will in turn reduce carbon emissions, and reduce the economic impact of time spent away from work and other activities whilst in the hospital waiting room.

**Changes in pre-abortion testing**

Routine ultrasound has long been thought to be unnecessary for the low risk population by abortion care providers; the RCOG working party group in 2011 suggested a change away from routine ultrasound scanning pre abortion treatment, and this was further supported by the National Institute of Clinical Excellence (NICE) in 2019.

There are two main benefits to performing an ultrasound scan before commencing treatment; one is accurate estimation of gestational age based on fetal crown-rump length (CRL), the other is in excluding an ectopic pregnancy. When medical treatment was strictly limited to under 9 weeks gestation, calculating gestational age was necessary to avoid this upper limit. Interestingly, when the gestational limit was increased the practise of performing ultrasound routinely was embedded and did not alter. Studies have shown that the vast majority of women are aware when their last menstrual period was, and that gestation can therefore be reliably calculated from this.

The incidence of ectopic pregnancy in women requesting abortion is low at approximately 1 in 90. The RCOG guidance outlines those who should still receive ultrasound prior to treatment and is outlined in **Box 2**.

The concern that lots of women would be at high risk of ectopic is unfounded; we do not routinely offer ultrasound scans to all women choosing to continue a pregnancy until approximately 12 weeks gestation. Women who have symptoms of pain and bleeding after early medical abortion are signposted and advised to attend emergency services where investigation to exclude an ectopic pregnancy can be carried out. Moreover the medications used in EMA are unlikely to cause harm if an ectopic pregnancy is later diagnosed.

There has also been a move away from routine haematological investigations, as screening for anaemia and haemoglobinopathies is deemed unnecessary in low risk women; the incidence of significant anaemia (Hb < 100 g/dl) being less than 5%. It is also unnecessary to determine blood group in women with early gestations. Evidence assessed by NICE in its guideline update for Abortion Care in 2019 advised that the risk of feto-maternal haemorrhage for women undergoing medical abortions under 10 weeks is low and Anti D use to reduce the risk of iso-immunisation was not indicated.

**Indications for ultrasound scan**

- Unsure of last menstrual period (LMP)
- Symptoms of unilateral abdominal/pelvic pain and/or symptoms of pv bleeding/spotting that may indicate ectopic pregnancy
- Previous ectopic pregnancy
- Presence of intrauterine contraceptive device at conception
- Previous tubal surgery or damage

Screening for sexually transmitted infections, including HIV, was delegated to web based screening tools; that is, where tests are sent to the patient’s home and results returned via email or text message.

This rationalisation of services and investigations has been evident across many other services. One example is in early pregnancy care; where during the initial lockdown women with mild symptoms of a threatened miscarriage would be advised to manage this conservatively instead of being offered a reassurance scan.

**Pills by post**

A further change that occurred was the way in which medications were provided to women. Many abortion care providers took up ‘pills by post’, whereby a package containing all the relevant medications, information and follow up care could be sent out to the patient. The package contained mifepristone and misoprostol, pain relief, such as paracetamol and codeine phosphate, an antiemetic and a low sensitivity pregnancy test to be carried out after three weeks. Access to contraception was particularly limited during the first lockdown, with many sexual health staff redeployed to work on the ‘covid wards’, therefore contraception should have been discussed during the tele-consultation and an oral contraceptive provided. The progesterone only pill became the most commonly prescribed mode of contraception as there are relatively few contraindications, there is no requirement to screen for hypertension and that it is easy to take and well tolerated by most women.

**Conclusion**

The pandemic has provided a unique opportunity to streamline and improve abortion care services for women, removing some of the older practises that created barriers for accessing safe care for women and do not alter the safety profile of EMA. Positive changes include shorter waiting times for appointments and treatment, thereby meaning that abortions are carried out at earlier gestations when risks will be fewer. Most importantly these changes put women at the centre of their care and abortion care providers around the country will be hopeful for many of the changes to become common practice.