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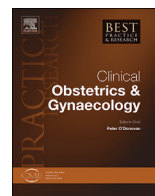


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Prioritisation of outpatient appointments and elective surgery in gynaecology



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A B S T R A C T

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The coronavirus disease 2019 (COVID-19) pandemic continues to be a global public health concern. It has posed a multitude of challenges from managing the supply chain of personal protective equipment (PPE), reducing the spread of the virus through national restrictions, disrupting the routine delivery of healthcare services to now the race in developing novel treatments and vaccines. As the National Health Service (NHS) considers a phased restoration of non-emergency services, it is imperative to consider the high volume of patients awaiting specialist reviews and surgical procedures. Gynaecology services have to be prioritised according to the patients' clinical needs rather than their individual waiting times. In this chapter, we look at the varying aspects of prioritising non-emergency gynaecology care, including outpatient appointments and elective surgery, how innovative pathways have evolved in response to necessity, what some of the barriers have been to implement these and how this has overall impacted on individual gynaecological specialties.

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The coronavirus disease 2019 (COVID-19) pandemic has been an unpredictable scourge in this 21st century, forcing extreme measures of curfew and lockdown to be imposed almost worldwide in an attempt to control its spread. The National Health Service (NHS), faced with this unknown and daunting opponent, rightly suspended “less-essential” aspects of healthcare to ensure that adequate

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resources were geared towards core services to save lives [1]. While essential healthcare needs were still catered to, this has resulted into disruptions and delays with regards to elective work and surgery.

With the advent of widespread testing capacity and novel vaccines to control this pandemic, the restoration of regular healthcare services is now imperative to aid in the third phase of the NHS response as highlighted by NHS England on 31 July 2020 [2]. In gynaecology, there is a backlog of patients awaiting specialist review, diagnostic procedures and elective surgery which requires a prioritisation framework so that it can be efficiently addressed. This review summarises the available evidence and guidance to resume some basic aspects of care in gynaecology. However, with the constantly evolving situation and as our knowledge on COVID-19 increases, these guidelines will also change and adapt to reflect the best practice at that time.

Prioritisation framework

The Royal College of Obstetrician and Gynaecologist (RCOG) in collaboration with other specialist societies have produced a framework – based on the guidance developed by the Royal College of Surgeons [3] – which outlines the priority of gynaecology patients for outpatient assessment and procedures as well as a five-point scale priority level for surgical consideration [4]. This is detailed in Tables 1 and 2 [3,4] and acts as a guide for planning services in the recovery phase. While this guide is a helpful starting block in re-establishing near-normal gynaecology services, the interpretation of these priorities may vary widely across the UK due to differing constraints: COVID-19 workload in intensive care units, staffing level due to sickness or redeployment, infrastructure and IT considerations amongst others.

Remodelling of services in response to the pandemic

Coronavirus has been the catalyst for a myriad of innovations and change in previously established pathways. This comes as an attempt to maintain the provision of high-quality healthcare while adhering to the new infection control and social distancing measures to reduce nosocomial COVID-19 infections.

Telephone triage-based system for consultations

Telephone triage is an effective way for patients to get in touch with a healthcare professional before a consultation. This allows screening questions to be asked so that they are appropriately risk assessed

Table 1
Prioritisation of indication for outpatient assessment and procedures.

Emergency
Within 7 days
Within 14 days
Within 30 days
Over 30 days

Table 2
Prioritisation for surgical services within Obstetrics and Gynaecology.

Priority level	Time to surgery
1A	Emergency
1B	Within 72 h
2	Up to 4 weeks
3	Up to 3 months
4	Over 3 months

with respect to coronavirus prior to their hospital visit. It also allows the healthcare professional to identify the patient's pressing clinical need and offer telephone advice if appropriate, which reduces the face-to-face clinical consultation workload. Triage systems have been well-established in other aspects of clinical medicine, for example, in emergency medicine or even in obstetric practice [5–7]. It is encouraging that this system is being more widely utilised as part of creating a safer environment for both patients and clinicians, for example, in early pregnancy assessment units (EPAUs) or by anaesthetists to do preoperative assessments before surgery [8,9].

Virtual clinical consultations

Telemedicine has been propelled in the forefront since COVID-19 as a means of reducing patients' exposure to infections while still providing high-quality care [10]. The use of video and telephone virtual consultations has also been promoted widely in gynaecology to ensure continued access to outpatient appointment for vulnerable user groups as well the general population [3]. Remote clinic consultations also have the advantage of not requiring a big physical space to be carried out as well as enabling healthcare practitioners, who might be self-isolating due to exposure to coronavirus or who are shielding due to their risk factors, to alleviate the burden of work of their colleagues who can then focus on face-to-face interactions [11,12]. In gynaecology, services, such as hormone replacement therapy (HRT) and menopause, have been highly successful at conducting virtual consultations since there is usually minimal need for a clinical examination unless there are specific concerns. This is also true for most follow-up consultations, including post-operative reviews.

Infrastructure projects and use of private medical facilities

The demand for hospital beds has led to some of the Nightingale hospitals built across the country during COVID-19 to be repurposed as non-COVID-19 recovery areas following procedures and operations [13,14]. This is to improve patient flow in the short and medium term. In addition, the increasing waiting lists for elective surgery has prompted collaboration with private hospitals to carry out NHS procedures and operations so that the backlog can be tackled effectively [4].

Waiting list prioritisation and validation

NHS England has produced clear guidance on how to ensure validation of the waiting lists for endoscopic procedures or surgery following the first peak of coronavirus. Indeed, patient circumstances might have changed following the pandemic and it is important to establish their new risk factors or how their clinical condition is. A two- or three-stage validation process has been advocated which establishes an updated list of patients on the waiting list who then all undergo a clinical validation by an appropriately trained clinician to establish the clinical priority or consider alternate pathways. A shared decision-making approach is encouraged so that the best evidence-based decision can be reached which is at the same time centred around the patient preference and values [15].

Potential barriers to prioritisation framework

The restoration of services to the pre-pandemic standard of routine healthcare faces several potential hurdles which require planning and financial investment to overcome [4]. Below are some of the most common problems that we have and will encounter.

Staffing: sickness, redeployment and potential burnout

Soaring of infection rates has seen the redeployment of healthcare professionals from outpatient and elective services to support critical care and high-dependency units [16]. The multiple surges in the number of COVID-19 cases that the UK has had to deal with so far have also caused an increase in the number of staff that been affected either due to mandated self-isolation or from sickness after contracting the disease. This has therefore put a strain on the staffing levels in gynaecology which leaves

much to be desired especially if we are thinking of a rapid reinstatement of services to normal. With the pandemic being a prevalent issue for the past year now and exerting enormous pressures on the NHS, potential burnout in staff is also a valid concern which needs to be considered by setting up adequate support systems.

Infrastructural and IT limitations

As we consider the road to recovery, we will have to consider the impact of COVID-19 in any strategic planning. Coronavirus will be part of our day-to-day life for the foreseeable future and as such, social distancing measures will have to be kept in place on the wards and in clinics [17]. This will reduce our capacity to see patients. The other consideration is the fact that during the first wave of the pandemic, physical bed spaces or clinic areas may have been diverted to support the influx of patients with the virus or for other essential healthcare provisions. For a successful restoration of the elective gynaecology services, these facilities will need to be reclaimed, albeit in a more flexible manner as dictated by the incidence of the virus.

The routine use of telemedicine will need to compensate for the potential infrastructural limitations. However, to sustain these changes and ensure reliability, substantial investments will be required for a robust IT system in all trusts and units [4].

Impact of COVID-19 care provisions

The pandemic is far from being under control even though we are slowly seeing improvements in the range of treatment available. The rapid development of potential vaccines has also given us a glimmer of hope that the virus will be in check in the near future. However, until then, we will have to deal with the fluctuations in the R (reproduction) rate of the virus and its impact on non-essential care provisions. For instance, with a spike in the R rate, the number of patients requiring critical care support is expected to rise. This, in turn, results in the diversion of resources (staffing and infrastructure) to support which can cause a delay in continuing with complex elective surgery that might have required intensive treatment unit (ITU) support for the patient or even providing routine outpatient clinic reviews for women.

Personal protective equipment, COVID-19 testing capacity and vaccine provision

With the resumption of elective gynaecological services, several factors have to be taken into consideration. Adequate personal protective equipment (PPE) will be essential in continuing the delivery of care in a safe manner and as more elective procedures are planned, the PPE demands will need to be matched in a timely fashion. The restoration framework, especially with regards to gynaecological surgery and diagnostic procedures, relies heavily on appropriate COVID-19 testing capacity. Indeed, there is some evidence of poorer outcomes for asymptomatic COVID-19 patient who undergo surgery which we need to mitigate [18]. This will therefore need to be addressed prior to the expansion of elective services. The rapid and ambitious vaccination programme put in place by the NHS, however, might be the key to this issue.

Gynaecological services

Gynaecological services during the pandemic have focussed on providing essential aspects of gynaecology care, for example, oncology, early pregnancy and abortion care or emergency gynaecology. The majority of the non-essential care was paused which has led to significant extension of waiting times for those services. The RCOG along with the relevant specialist societies have put in place a document detailing how common procedures and indications should be re-instated now that the aim is the recovery process of healthcare [4]. This has had differing impacts on the various gynaecological specialties which we will explore below.

Early pregnancy

As one of the few gynaecology services that was operating throughout the coronavirus period, acute gynaecology and early pregnancy adopted a protocol for screening patients for COVID-19 prior to their attendance so that their care could be tailored appropriately. All attendances to the early pregnancy units were also appropriately triaged by a clinician to reduce the number of unnecessary appointments and contact. There was a rationalisation of scan appointments based on clinical presentation and the available evidence [8]. In terms of managing early pregnancy complications, the focus was geared towards a safe outpatient conservative management wherever possible. Where it was not, for example, in some miscarriages, manual vacuum aspiration under local or regional anaesthesia was preferred [8]. Ectopic pregnancies that required surgical interventions were carried out using guidance from the British Society of Gynaecological Endoscopy (BSGE) to reduce the risk of exposure [19]. The frameworks designed during COVID-19 to continue early pregnancy services seem to have revolutionised the process to make it more efficient while maintaining safety. As we move out of the pandemic, a shift towards keeping those measures in place should be considered once we evidence their use by comparing safety data regarding the management of patients with previous years.

Sexual and reproductive health and abortion care

Abortion care has continued throughout the pandemic as an essential healthcare service and by implementing some adaptations to patient review and through a temporary legislation change that now allows the home use of mifepristone and misoprostol for medical abortions of up to 10-week gestation [20]. Fig. 1 shows the process followed to facilitate medical abortion during COVID-19.

Remote consultations have been central to the conduct of abortion care over the last few months. This has meant providing abortion care without routine pre-pregnancy ultrasound where there is no specific indication such as an unreliable last menstrual period (LMP) or high concern for an ectopic pregnancy [20–22]. This practice has been supported by previous guidance published by the RCOG and other international bodies including the World Health Organisation [22–25]. Indeed, a systematic review by Endler et al., in 2017 has advocated the practice of medical abortion without routine scanning for pregnancies of less than or equal to 10-week gestation [26]. The emergence of this global viral pandemic has propelled the use of telemedicine and enabled the change that has been advocated by the literature. The restoration of services should therefore consider the benefits of continuing this process as a more efficient way of managing resources, whether it is staff, infrastructure or valuable scan appointments, rather than reverting to the pre-pandemic system.

While the first COVID-19 wave greatly impacted on the provision of sexual and reproductive healthcare (SRH), the Faculty of Sexual and Reproductive Healthcare (FSRH) has since issued guidance on maintaining provision of effective contraception via the use of remote consultation where possible and the use of electronic prescribing [27]. Pathways for urgent referrals have been established, including amongst others, the prioritisation of outpatient appointments for patients reaching the end of the extension period of long-acting reversible contraception (LARC) during the first wave [28–31].

Benign gynaecology

Benign gynaecology is one of the specialties where COVID-19 has brought a significant reduction in service provision and which now requires a step-by-step approach to return to clinical activity. This is an area where the prioritisation framework set by the RCOG is particularly useful both for clinic appointments as well as for planning elective surgery (see Tables 1 and 2) [4]. Recent guidance on one of the most common symptoms in benign gynaecology, heavy menstrual bleeding management promotes an initial remote clinical consultation with the use of medical management [32]. However, more complex needs should prompt a referral for a face-to-face appointment with appropriate investigations including diagnostic procedures such as hysteroscopy [32]. Similarly, other common benign gynaecology presentations support a remote clinical consultation with the RCOG framework giving guidance regarding the clinical priority for procedures.



Fig. 1. Early medical abortion care management during COVID-19 pandemic (adapted from RCOG coronavirus and abortion care guidance) [20].

Menopause

This service has been modified to virtual consultations in both primary and secondary care to keep the patient visits to healthcare centres to a minimum. As the restoration of services happen, these changes need to be assessed and continued where appropriate to allow more flexibility for both patients and practitioners. However, this should not preclude the availability of some face-to-face appointments, for instance, where clinical examination would be appropriate. These requirements can be identified by the use of validated pre-clinic questionnaires [4,33]. The British Menopause Society (BMS) also promotes the use of multidisciplinary menopause clinics (MDTs) either virtually or via email where appropriate to maintain a high standard of patient care [33].

Urogynaecology

Urogynaecological conditions tend to mostly form part of the non-essential gynaecology care and as such, has suffered the one of the greatest reduction in clinical activity. This is also because the older, more vulnerable population cohorts are typically seen with urogynaecological complaints and genital prolapse [35]. During the pandemic, it was advocated that routine ring pessary change could be delayed by up to 6 months [34], delays which were compensated by virtual consultations to assess patients and any problems necessitating face-to-face interaction. However, new patients require

clinical examinations and physical procedures, such that only a limited number of new consultations can be carried out virtually [4]. These would mostly be initial consultations to obtain a history and discuss lifestyle changes but would then go on to require face-to-face assessments [35]. These are currently being prioritised according to the RCOG framework [4].

Gynaecological oncology

During the pandemic, urgent gynaecological oncology work has continued, mainly in the form of diagnostic work up, and medical and surgical management. However, there has been a significant reduction in oncological referrals [4]. As we aim to return cancer services to normal levels, the “two-week wait” referrals should be continually encouraged from primary care for red flag symptoms [36]. These include symptoms, such as post-menopausal bleeding or post-coital bleeding, the investigation and management of which has been clarified by the British Gynaecological Cancer Society [32]. Colposcopy treatments have been deemed to be safe in asymptomatic women with the use of appropriate PPE as the presence of COVID-19 in the genital tract and in blood for these women has been found to be low [37–39]. The use of a serviced smoke extractor has been recommended for long loop excision of the transformation zone (LLETZ) procedures [37]. The outpatient appointments have mostly been converted to virtual clinics to reduce the risk of exposure to potentially clinically vulnerable patients as well as reduce the need for a physical clinic space. This is also applicable to the initial triaging and review of the “two-week wait” referrals as well as the pre-operative assessments. However, understandably a “breaking bad news” clinic appointment is still being carried out in person to allow a clinical nurse specialist to support and enable appropriate signposting [36]. In terms of resuming less urgent gynaecological oncology surgery, these are being prioritised according to the RCOG prioritisation framework [4].

Reproductive medicine

Fertility treatment was allowed to restart once an assessment confirmed the safety conditions for the recovery of the various aspects of gynaecology care were met. Patient safety is the primary concern and patients undergoing fertility treatment need to be appropriately counselled regarding the lack of evidence to suggest harm or worsening of COVID-19 infection during pregnancy [40,41]. Patients are prioritised according to locally agreed criteria which need to be fair and transparent [4]. These standards may include, but are not limited to fertility preservation prior to cancer chemotherapy, advanced age or low ovarian reserve. All outpatient services require a prior coronavirus screening questionnaire and the face-to-face interaction has been reduced by the alternate use of video or telephone consultations where possible. Standard infection control procedures and good laboratory practice are also important in IVF laboratories, for instance, the use of required PPE and biological safety cabinets [42].

Paediatric and adolescent gynaecology

In keeping with other specialties, paediatric and adolescent gynaecology (PAG) outpatient clinics have mainly been conducted through telemedicine technology which also facilitates the use of MDTs especially in more complex cases such as differences in sexual development (DSD). These individuals are considered a priority for diagnostic investigations which will inform the urgency of any subsequent surgery [4]. There is still a case for some face-to-face consultation, but this needs to be individualised according to the patient's care needs.

Implications for future practice

The rapidly evolving nature of the COVID-19 pandemic makes it difficult to have a specific plan in place for the recovery phase. Ongoing strategic planning requires flexibility from the healthcare system, patients and well as staff to adapt to this ever-changing situation. One certainty is that this disease

has pushed the limits of our expertise and resources. It has empowered us to be innovative in how we re-establish healthcare services, utilising an improved healthcare structure, which can promote efficiency while making judicious use of limited resources. Only time and regular evaluation of the systems in place will ensure that this is being achieved. The restoration of all aspects of elective surgery and healthcare will be a slow process but there is hope that it will be achieved in due course as we obtain more evidence in combatting this pathogen.

Summary

With the third phase of the NHS response, there is a drive to restore the regular healthcare services to the pre-pandemic level. Gynaecology services have suffered major disruptions during the COVID-19 pandemic as only urgent and emergency gynaecology investigations and treatments were carried out. This has led to an accumulation of patients on waiting lists for specialist reviews, diagnostic procedures and surgery. The reduction in infection rates has relieved some pressure on the NHS which has now allowed the delivery of elective care in all the gynaecological specialties. The approach to this restoration has to be systematic with the RCOG prioritisation framework in place to ensure patients with the most pressing clinical concerns are being tended to first. Several inventive strategies have also been implemented, especially in the care of patients in gynaecology outpatient settings to ensure that we are following the mandated social distancing measures and infection prevention protocols while providing a high standard of care. There are several barriers to reinstating elective gynaecological services, the major one being the ever-fluctuating infection rate, but it has to be a dynamic process, so that issues can be identified and resolved gradually.

Practice points

- The improvement in coronavirus disease 2019 (COVID-19) infection rates prompted the restoration of non-essential delivery of care in gynaecology.
- The Royal College of Obstetrician and Gynaecologist (RCOG) has produced a prioritisation framework which outlines the patient's clinical priority for outpatient appointments and surgery to cope with the backlog of patients resulting as an aftermath of the pandemic.
- Previously established care pathways have been remodelled to deliver high-quality care while respecting infection prevention policies, safe social distancing and improve efficiency.

Research agenda

- As preliminary gynaecology services are reinstated, this should be surveyed to assess what works well and what should be improved.
- The use of patient groups to inform the continued gynaecology services restoration planning needs to be evaluated.
- The expansion of telemedicine in day-to-day practice should be observed to monitor patient satisfaction.

Declaration of competing interest

The authors have no conflicts of interest.

References

- [1] England NHS, Improvement NHS. Letter to chief executives of all NHS trusts and foundation trusts, CCG accountable officers, GP practices and primary care networks, and providers of community health services. Mar 2020. p. 17. <https://www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/03/urgent-next-steps-on-nhs-response-to-covid-19-letter-simon-stevens.pdf>.
- [2] England NHS. Letter from Sir Simon Stevens: important—for action—third phase of NHS response to covid-19. Jul 2020. p. 31. <https://www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/07/Phase-3-letter-July-31-2020.pdf>.
- [3] England NHS. Clinical Guide to surgical prioritisation during the Coronavirus pandemic. 30th December 2020. [FSSA website]. https://fssa.org.uk/_userfiles/pages/files/covid19/prioritisation_master_30_12_20.pdf.
- *[4] Royal College of Obstetricians and Gynaecologists. Restoration and recovery: priorities for obstetrics and gynaecology. A prioritisation framework for care in response to covid 19. Version 2.1 [RCOG website]. 26th June 2020. <https://www.rcog.org.uk/globalassets/documents/guidelines/2020-06-26-restoration-and-recovery-priorities-for-obstetrics-and-gynaecology.pdf>.
- [5] Dolan B, Holt L. Accident & emergency: theory into practice. third ed. Edinburgh: Baillière Tindall; 2013.
- [6] Angelini D, Howard E. Obstetric triage: a systematic review of the past fifteen years: 1998-2013. *Am J Matern Child Nurs* 2014;39(5):284–97.
- [7] Blank L, Coster J, O’Cathain A, Knowles E, Tosh J, Turner J, et al. The appropriateness of, and compliance with, telephone triage decisions: a systematic review and narrative synthesis. *J Adv Nurs* 2012;68(12):2610–21.
- *[8] Royal College of Obstetricians and Gynaecologists. Guidance for rationalising early pregnancy services in the evolving coronavirus (COVID-19) pandemic. Information for healthcare professionals. Version 1.2. [RCOG website]. Published 15th May 2020. <https://www.rcog.org.uk/globalassets/documents/guidelines/2020-05-15-guidance-for-rationalising-early-pregnancy-services-in-the-evolving-coronavirus-covid-19-pandemic.pdf>.
- [9] Lu AC, Schmiesing CA, Mahoney M, Cianfichi L, Semple AK, Watt DRN, et al. COVID-19 preoperative assessment and testing: from surge to recovery. *Ann Surg* September 2020;272(3):e230–5. <https://doi.org/10.1097/SLA.0000000000004124>.
- [10] Rockwell KL, Gilroy AS. Incorporating telemedicine as part of COVID-19 outbreak response systems. *Am J Manag Care* 2020;26(4):147–8. <https://doi.org/10.37765/ajmc.2020.42784>.
- [11] Hollander JE, Carr BG. Virtually perfect? Telemedicine for covid-19. *N Engl J Med* 2020;382:1679–81. <https://doi.org/10.1056/NEJMp2003539>. pmid:32160451.
- [12] Greenhalgh T, Wherton J, Shaw S, Morrison C. Video consultations for covid-19. *BMJ* 2020;368:m998. <https://doi.org/10.1136/bmj.m998>. pmid:32165352.
- [13] Torjesen I. Manchester’s Nightingale hospital reopens to non-covid patients. *BMJ* 2020;371:m4224. <https://doi.org/10.1136/bmj.m4224>. pmid:33122167.
- [14] Wise J. Covid-19: London’s Nightingale Hospital will reopen for non-covid cases. *BMJ* 2021;372:n15. <https://doi.org/10.1136/bmj.n15> (Published 05 January 2021).
- *[15] NHS England and NHS Improvement. Clinical validation of surgical waiting lists: framework and support tools. Version 1. [NHS England website]. 1st October 2020. <https://www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/10/C0760-Clinical-validation-of-surgical-waiting-lists-1-2.pdf>.
- [16] England NHS, Improvement NHS. Advice on acute sector workforce models during COVID-19. [NHS England website]. 10th December 2020. https://www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/12/C0833_advice-on-acute-sector-workforce-models-during-COVID_with-apps_10dec.pdf.
- [17] Wee LE, Conceicao EP, Sim XYJ, Aung MK, Tan KY, Wong HM et al. Minimizing intra-hospital transmission of COVID-19: the role of social distancing. *J Hosp Infect*, Vol105, 2, 113 – 115.
- [18] Lei S, Jiang F, Su W, Chen C, Chen J, Mei W, et al. Clinical characteristics and outcomes of patients undergoing surgeries during the incubation period of COVID-19 infection. *E Clin Med* 2020;21:100331.
- [19] British Society of Gynaecological Endoscopy. Joint RCOG/BSGE statement on gynaecological laparoscopic procedures and COVID-19. 2020.
- *[20] Royal College of Obstetricians and Gynaecologists. Coronavirus (COVID-19) infection and abortion care. Information for healthcare professionals. Version 3.1. [RCOG website]. Published 31st July 2020. <https://www.rcog.org.uk/globalassets/documents/guidelines/2020-07-31-coronavirus-covid-19-infection-and-abortion-care.pdf>.
- [21] NICE. Abortion care. National institute for health and care excellence (NICE). London: NICE. NICE Guideline; 2019. NG140. 25-9-2019. www.nice.org.uk/guidance/ng140.
- [22] American College of Obstetricians and Gynecologists. Practice Bulletin No. 143: medical management of first-trimester abortion. *Obstet Gynecol* 2014;123. https://journals.lww.com/greenjournal/Fulltext/2014/03000/Practice_Bulletin_No_143_Medical_Management_of_40.aspx 35 10.
- [23] Royal College of Obstetricians and Gynaecologists. The care of women requesting induced abortion. London: Royal College of Obstetricians and Gynaecologists. Evidence-based Clinical Guideline; 2011. p. 7. www.rcog.org.uk/globalassets/documents/guidelines/abortion-guideline_web_1.pdf 11.
- [24] World Health Organisation. Medical management of abortion. Geneva: WHO; 2018. Date accessed: 17-3-2020 12, www.who.int/reproductive-health/publications/medical-management-abortion/en/.
- [25] Raymond EG, Grossman D, Mark A, Upadhyay UD, Dean G, Creinin MD, et al. Commentary: No-test medication abortion: a sample protocol for increasing access during a pandemic and beyond. *Contraception*. 2020. PM:32305289.
- [26] Endler M, Lavelanet A, Clevee A, Ganatra B, Gomperts R, Gemzell-Danielsson, K. Telemedicine for medical abortion: a systematic review. *BJOG* 2019;126:1094–102. PM:30869829.
- *[27] Faculty of Sexual and Reproductive Healthcare. Ensuring provision of Sexual and Reproductive Healthcare (SRH) services during the second COVID-19 wave and beyond in the UK. [FSRH website]. Published 16th October. 2020.
- [28] Thaxton L, Lavelanet A. Systematic review of efficacy with extending contraceptive implant duration. *Int J Gynecol Obstet* 2019;144(1):2–8.

- [29] McNicholas C, Maddipati R, Zhao Q, Swor E, Peipert JF. Use of the etonogestrel implant and levonorgestrel intrauterine device beyond the US Food and Drug Administration— approved duration. *Obstet Gynecol* 2015;125(3):599.
- [30] Rowe P, Farley T, Peregoudov A, Piaggio G, Boccard S, Landoulsi S, et al. Safety and efficacy in parous women of a 52-mg levonorgestrel-medicated intrauterine device: a 7-year randomized comparative study with the TCu380A. *Contraception* 2016;93(6):498–506.
- [31] Wu JP, Pickle S. Extended use of the intrauterine device: a literature review and recommendations for clinical practice. *Contraception* 2014;89(6):495–503.
- *[32] Royal College of Obstetricians and Gynaecologists. Joint RCOG, BSGE and BGCS guidance for the management of abnormal uterine bleeding in the evolving Coronavirus (COVID-19) pandemic. Version 3. [RCOG website]. May 2020. <https://www.rcog.org.uk/globalassets/documents/guidelines/2020-05-21-joint-rcog-bsge-bgcs-guidance-for-management-of-abnormal-uterine-bleeding-aub-in-the-evolving-coronavirus-covid-19-pandemic-updated-final-180520.pdf>.
- *[33] Royal College of Obstetricians and Gynaecologists. Joint BMS/RCOG/RCP/FSRH framework for restoration of menopause services in response to COVID-19. [RCOG website]. 2020. <https://www.rcog.org.uk/globalassets/documents/guidelines/framework-for-restoration-of-menopause-services-2020.pdf>.
- [34] Propst K, Mellen C, O'Sullivan DM, Tulikangas PK. Timing of Office-based pessary care: a randomized controlled trial. *Obstet Gynecol* 2020;135(1):100–5.
- *[35] Royal College of Obstetricians and Gynaecologists. BSUG guidance on management of urogynaecological conditions and vaginal pessary use during the covid 19 pandemic. [RCOG website]. 2020. <https://www.rcog.org.uk/globalassets/documents/guidelines/2020-04-09-bsug-guidance-on-management-of-urogynaecological-conditions-and-vaginal-pessary-use-during-the-covid-19-pandemic.pdf>.
- *[36] Royal College of Obstetricians and Gynaecologists. BGCS framework for care of patients with gynaecological cancer during the COVID-19 Pandemic. Version 3.0. [RCOG website]. May 2020. <https://www.rcog.org.uk/globalassets/documents/guidelines/2020-05-05-bgcs-covid-19-framework-v3.pdf>.
- *[37] Royal College of Obstetricians and Gynaecologists. Colposcopy guidance during COVID-19 pandemic. [RCOG website]. 2020. <https://www.rcog.org.uk/globalassets/documents/guidelines/2020-04-17-colposcopy-guidance-during-covid-19-pandemic.pdf>.
- [38] Wang W, Xu Y, Gao R, Lu R, Han K, Wu G, et al. Detection of SARS-CoV-2 in different types of clinical specimens. *JAMA* 2020;323(18):1843–4. <https://doi.org/10.1001/jama.2020.3786>.
- [39] Chang L, Yan Y, Wang L. Coronavirus disease 2019: coronaviruses and blood safety. *Transfus Med Rev* 2020;34:75–80.
- [40] Public Health England. COVID-19: investigation and initial clinical management of possible cases. 2020. Available from: <https://www.gov.uk/government/publications/wuhan-novel-coronavirus-initial-investigation-of-possible-cases/investigation-and-initial-clinical-management-of-possible-cases-of-wuhannovel-coronavirus-wn-cov-infection>.
- [41] Allotey J, Stallings E, Bonet M, Yap M, Chatterjee S, Kew T, et al. Clinical manifestations, risk factors, and maternal and perinatal outcomes of coronavirus disease 2019 in pregnancy: living systematic review and meta-analysis. *BMJ* 2020;370:m3320.
- [42] The Association of Reproductive and Clinical Scientists ARCS, British Fertility Society BFS. U.K. best practice guidelines for fertility clinics during the COVID-19 pandemic. Version 3.0. [BFS website]. 30th September 2020. <https://www.britishfertilitysociety.org.uk/wp-content/uploads/2020/09/ARCS-BFS-guideline-Covid-19-version-3-30-September-2020.pdf>.