

## **The Association of Reproductive and Clinical Scientists (ARCS) and British Fertility Society (BFS) U.K. best practice guidelines for fertility clinics during the COVID-19 pandemic.**

Prepared by the ARCS/BFS COVID working group\* on behalf of the Executive Committees of ARCS and the BFS.

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### **Introduction and background**

Arising in China in late 2019, the novel coronavirus (SARS-CoV-2) has swept the globe. Confirmed cases of COVID-19 have grown rapidly and, at the time of writing, exceed 32 million worldwide, with over 983,000 deaths. In the United Kingdom, confirmed cases exceed 412,000 and 41,951 deaths have been recorded as a direct result of COVID-19 at the time of writing (1)

In March 2020 a letter from the Chief Executive and Chief Operating Officer of the NHS directed all NHS providers to, amongst other measures, prepare to '*postpone all non-urgent elective operations from 15th April at the latest, for a period of at least three months*'. Subsequently private hospitals cancelled all elective work and the NHS block booked their capacity for urgent NHS work. Against this backdrop, ARCS and the BFS published initial guidance on the 16<sup>th</sup> March, which was updated and expanded on the 18<sup>th</sup> March. This guidance recommended that assisted conception centres cease all elective treatment activity as soon as possible to reduce the potential burden on the NHS from treatment complications, ensure social distancing, reduce risk of viral infection for patients and free up essential resources to aid in the fight against the pandemic. The BFS/ARCS guideline was followed on the 23<sup>rd</sup> March by the publication of General Direction 14 by the HFEA, which limited treatments to fertility preservation in patients who were, in the written opinion of a registered medical practitioner, likely to become prematurely infertile. General Direction 14 coincided with the announcement of a lockdown by the Prime Minister to limit the spread of the virus.

The lockdown included strict social distancing rules and a moratorium on all but essential travel. The fall in incidence of new cases associated with lockdown allowed a progressive easing of restrictions from mid-July 2020. Subsequent to this, the incidence of COVID-19 began to rise again. On 21 September 2020, the UK threat level from COVID-19 was increased to Level 4 (a high or rising level of transmission). The Chief Medical Officers of the four nations have cautioned that 'the number of cases are now rising rapidly and exponentially in significant parts of all four nations'. In keeping with this prognosis, restrictions on social contacts and businesses have been reintroduced across the U.K.

From the outset ARCS and the BFS have been acutely aware of the impact of the closure of the sector on patients, staff, clinics and the field of fertility treatment, and supported the reopening of services as soon as it was considered safe to do so, balancing risks and empowering our members to prepare and respond proportionately and professionally. On 1st May 2020, the BFS and ARCS published a position statement (2) detailing their view that the milestones necessary to allow treatment to resume in the U.K. had largely been met. On the same day the HFEA wrote to all licensed centres in the U.K. advising that, from the 11th May

2020 they would be able to apply for treatment to restart, subject to their being able to demonstrate that steps necessary to protect staff and patients against infection had been put in place. On 12th June 2020, this guidance was updated to support centres in re-starting routine fertility treatment in a safe and sustainable manner, including what steps should be taken to protect patients and staff. Since then, the majority of licensed centres have resumed routine treatment services.

The ARCS and BFS provide this further revision of their guidance to support the work of fertility clinics, which are continuing to provide fertility treatment in the midst of the ongoing pandemic that is likely to persist over a period of months or years. We recommend that this guideline should be used in conjunction with prevailing Government, NHS and HFEA advice and regulations. Recent developments make it clear that there are significant regional variations in the spread of coronavirus infection, which should be taken into account in making decisions about how services are provided in a safe and sustainable manner.

The guideline was developed by the ARCS/BFS working group and circulated to members of both societies with opportunities for feedback before publication. It is intended as advisory guidance that clinicians may use to provide safe and effective care to their patients. The sector as a whole should endeavour to preserve continuation of fertility treatment in the event of future increases in the spread of COVID-19, recognising the adverse impact of suspension of services on patients (3)

## **1. Five Key Principles**

The following principles underpin the approach taken in revising this guidance:

- Provision of fertility services must take place in a manner that minimises the chances of spread of COVID-19 infection to patients and fertility clinic staff.
- Centres should ensure a fair and transparent approach to any prioritisation policy.
- Provision of treatment should not result in an undue burden on the NHS.
- Clinical judgement and individualisation of treatment according to the needs of the patient remains at the heart of good clinical care. Patients considering treatment should be fully informed about the effect of the ongoing pandemic on their treatment and give informed consent to having fertility treatment at this time, considering their individual risk profile.
- The fertility sector should adopt sustainable changes in working practices that help to build resilience against any future increases in the spread of COVID-19 in the community.

## **2. Ensuring patient safety**

### **a. Information and consent**

It should be recognised that patients are likely to be anxious about coronavirus infection and its potential effects on pregnancy. Patients should be made aware that the present experience is limited and does not indicate that the severity of infection is any worse in pregnancy. At this stage, there is no evidence of an increased risk of fetal anomalies or adverse pregnancy complications (4). Nonetheless, patients should be carefully counselled, taking into account their individual clinical situation and risk profile, and the likely persistence of the virus in the local community in the medium term. This counselling and the patient's decision whether or not to proceed with fertility treatment should be documented in the medical record.

### **b. Prioritisation and exclusions**

Patient prioritisation may form part of service provision in the event that clinic resources do not

allow all patients to be treated without delay. Fertility preservation for patients facing cancer chemotherapy or other treatment that is likely to affect their fertility should continue to be a priority. In addition, it is reasonable to prioritise patients in whom delay is most likely to significantly affect the outcome of treatment. Patients at special risk include those with a low ovarian reserve, advanced age and those facing extirpative pelvic surgery (for instance due to severe endometriosis or bilateral ovarian cysts). The above list is not exhaustive, and each clinic should decide on which groups, if any, to prioritise based on the profile of its patient population and how it organises its care.

Particular caution should apply to patients with underlying medical problems whose co-morbidity places them at a higher risk of complications in the event of contracting coronavirus infection. This includes patients with obesity, hypertension, diabetes and those receiving immunosuppressive medication. It may be appropriate for such patients to delay conception until epidemiological evidence shows a sustained reduction in the community spread of the infection. This decision should be informed by knowledge of local coronavirus infection rates and local measures, if any. Consideration should be given to the effect of delay on the patient's chance of successful outcome from treatment.

Commissioners should endeavour to ensure that patients in primary and secondary care settings are not disadvantaged by delays caused by the pandemic, and clinics are encouraged to liaise with commissioners to support where they can in this regard.

#### c. **Triaging, screening and testing**

There remains variability in availability and turnaround times of reliable serological tests in the UK and reliance must be placed on symptomatic screening and antigen testing. Reliable antibody tests are now available, but evidence of prior infection does not rule out current or chronic infection. It is likely that the coming weeks will see rapid progress in both the availability and efficacy of testing for coronavirus, and centres are advised to follow local and national guidelines in implementing a testing policy that is both proportionate and reliable.

- **Before starting treatment:** A screening questionnaire (see Appendix 1) should be completed. Consideration should be given to antigen testing (or an equivalent test if available, validated and approved). Patients and donors with a diagnosis of COVID-19 infection should not start treatment until they have recovered and are not considered infectious. National guidelines should be followed in this regard. Centres should consider advising patients and potential egg donors to self-isolate, if possible, from the start of ovarian stimulation treatment until egg collection.
- **During treatment:** A coronavirus screening questionnaire should be administered prior to every clinic visit. Patients and donors who remain negative on questionnaire screening should be allowed to complete treatment. In centres that institute an antigen testing policy, consideration should be given to performing an antigen test as close as reasonably possible to any surgical procedure depending upon local guidelines and availability of testing.
- **Action in the event of suspected COVID-19:** If a patient or donor develops symptoms suggestive of coronavirus or screens positive on the questionnaire during treatment, an antigen screen should be arranged and treatment should not proceed unless the patient screens negative as defined by national guidelines. In the event of a patient or donor presenting with suspected or confirmed COVID-19 after the ovulatory trigger, a multi-

disciplinary individual risk assessment should take place to balance the risks of refraining from oocyte retrieval against those of proceeding. At present there is little data on the risks of minor surgical procedures in women with a diagnosis of COVID-19. Patients who become symptomatic after oocyte retrieval but prior to embryo transfer should be advised to freeze all their embryos for future use

- **Sperm donation**

There is currently limited evidence that viral particles may be present in semen (5, 6), but there is no evidence of infectivity. Centres are advised to triage, screen and test sperm donors according to the principles above, and to keep abreast of developments in this area and risk assess actions appropriately if further evidence emerges.

**d. Reducing face-to-face interactions**

Centres should consider ways in which the frequency and duration of visits required to undergo fertility treatment may be reduced without compromising safety and quality. Telephone and video consultations should replace face-to-face interactions in most situations, depending on the patient profile and the expectations from the consultation. Patients with a learning disability or complex needs may not be suitable for treatment without a face-to-face consultation. Centres should ensure that any software used meets the requirements of data protection. Clinicians may require training in the performance of 'virtual' consultations, including the need for confidentiality, accurate patient identification and provision of sufficient time for patients to assimilate information and ask questions. Recording of consultations should only be allowed with consent from all parties. Consent for fertility treatment may be taken remotely, provided the clinician is satisfied that the patient thoroughly understands the implications of consenting. Software packages exist to aid this process.

Centres that provide group patient information sessions should explore the use of videos and podcasts that can be accessed from home, avoiding the need for patients to congregate in large numbers.

Online counselling options should be available to patients.

Centres should aim to reduce the number of visits required for monitoring ovarian stimulation, particularly in women with a normal ovarian reserve.

Centres should minimise the number of accompanying persons. Centres will need to carry out risk assessments to ensure the attendance of a partner at appointments is safe. Live attendance of a partner at the early pregnancy scan and embryo transfer may be considered as long as it is considered safe to do within the social distancing regulations and local policies. Virtual attendance can be considered providing consent is given, ensuring privacy and dignity.

Virtual consultations, including those where an interpreter is needed, offer a way of managing care safely without the need for multiple attendees in person.

**e. Minimising clinical risk**

Clinical protocols to minimise the risk of OHSS are a well-established part of modern reproductive medicine practice, based on the value of a Gonadotropin-Releasing Hormone (GnRH)-Antagonist protocol and GnRH-agonist trigger in appropriate cases. Centres should bear in mind the value of these and of careful ovarian stimulation to minimise the risk of hospital admission for patients and to reduce the burden on the NHS. Operative and infective complications following oocyte retrieval are rare, and preventative measures such as prophylactic antibiotics should be considered to reduce risk

where appropriate. While good clinical judgement remains key in the management of individual patients at this time, the use of empirical treatments of uncertain efficacy and safety, including immunosuppressive treatments should be avoided (7). It is likely that different treatments vary in their potential effect on susceptibility to complications from coronavirus infection. We emphasise the role of clinical judgment informed by the evidence base and full patient counselling on the risks and benefits of treatment.

#### **f. Minimising risk in the laboratory**

There is limited, conflicting evidence regarding the presence of the respiratory virus responsible for COVID 19 in follicular fluid or seminal plasma, although it is not known to be associated with gametes or embryos. A recent small study of patients recovering from COVID-19 reported that SARS-CoV-2 was not detected in the semen of patients recovering from COVID-19 1 month after COVID-19 diagnosis. (5). This evidence was not confirmed by a subsequent study which identified SARS-CoV-2 in the semen of currently infected and recovering patients (6). However, the long-term effects of this virus SARS-CoV2 on male reproductive function are unknown.

Standard infection control procedures and good laboratory practice are, therefore, considered appropriate in the IVF laboratory during this time. This includes standard IVF laboratory PPE and the use of biological safety cabinets. When working with follicular aspirates or semen, which may contain blood, class 2 workstations offer the most protection for the operator. Safety glasses may be used with class 1 workstations, for additional protection, but the risk of possible impairment on microscopy should be considered. Laboratory staff should aim to minimise handling and sharing of pipette handles/teats, pens and keyboards etc. and clean down equipment, such as microscope controls and eyepieces between operators.

Currently available evidence indicates that the cryopreservation of gametes and embryos during the pandemic may be performed using routine practices, although centres are advised to risk assess and consider similar practice and storage to that used for seropositive infectious diseases such as HIV, as a precaution for known COVID -19 positive patients only (e.g. high security straws or vials, vapour phase or separate liquid phase storage).

Clinics are advised to liaise with third parties used to transport gametes and embryos between licensed clinics to ensure Covid-secure practices. This may include risk minimisation of surface transmission of coronavirus by cleaning of the exterior of receptacles used for shipments. Clinics are also advised to review pick up and drop off points and procedures to minimise unnecessary contact of personnel, whilst ensuring safety of container contents.

#### **g. Patient Personal Protective Equipment (PPE)**

Government guidance provides information on when to wear face coverings. It is expected that face coverings are worn in indoor places (including all healthcare settings) where social distancing may be difficult. Provision must be made for safe disposal of PPE used by visitors.

### **3. Practical considerations for service provision**

#### **a. Clinic Layout**

As provision of fertility services must take place in a manner that minimises the spread of COVID-19 infection to patients and fertility clinic staff, areas of the clinic may require reconfiguration to enable safe physical distancing. The specific configuration of these areas may change as Government and

health service guidance is updated and it is the responsibility of the Clinic to maintain up to date knowledge and to make adjustments accordingly.

Consideration should be given to the layout of each area including:

- Patient reception
- Patient waiting areas
- Consultation and counselling rooms
- Clinical rooms used for ultrasonography or phlebotomy
- Procedure rooms for oocyte recovery or embryo transfer
- Laboratories
- Administration offices
- Communal staff areas (e.g. dining room, staff room)

The following measures relating to clinic layout should be considered:

- Physical barriers between staff and patients, and/or appropriate PPE for the activity being undertaken
- Spacing of furniture to ensure physical distancing is maintained between persons not from the same household (e.g. waiting area chairs, workstations in administrative offices)
- Signage and information clearly describing the requirements in place

#### **b. Physical distancing**

Social distancing guidelines should be adhered to at all times, in line with Government guidance and revised centre policy. Centres should consider each type of patient and staff interaction and put measures in place to minimise the risk of COVID-19 infection. Consideration should be given to the following interactions and processes, in terms of physical distancing. (This list is not exhaustive and centres should undertake assessment of all areas within their licensed facility):

- Patient arrival and checking in process at the clinic
- Patient consultation
- Patient consent taking
- Phlebotomy
- Ultrasonography
- Counselling
- Semen production
- Oocyte or Surgical sperm recovery
- Embryo transfer
- Staff meetings
- Confidentiality
- Witnessing
- Staff work discussions
- Staff breaks
- Use of corridors, communal areas, lifts and stairways

The following measures should be considered to ensure physical distancing wherever possible:

- Reconfiguration of areas of the clinic (see section above)
- Implementation of restrictions to the use of communal (social) areas, such as the staff room
- Staff working from home should be encouraged where possible
- Production and delivery of semen samples from home, following guidelines to avoid compromising the sample
- Implementation of virtual meetings wherever possible, minimising face to face appointments. (e.g. consultation, injection teaching and counselling)
- The use of electronic platforms for consent-taking, where available

- Use of approved electronic communications and messaging systems wherever possible
- Implementation of restrictions on partners and companions for appointments, where possible and appropriate
- Limiting staff and patient numbers permitted in each clinic area

**c. PPE**

Infection prevention and control guidance has been updated by PHE to recognise new ways of working in a COVID endemic environment and to facilitate the re-opening of healthcare services.

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/910885/COVID-19\\_Infection\\_prevention\\_and\\_control\\_guidance\\_FINAL\\_PDF\\_20082020.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/910885/COVID-19_Infection_prevention_and_control_guidance_FINAL_PDF_20082020.pdf)  
<https://www.gov.uk/government/publications/wuhan-novel-coronavirus-infection-prevention-and-control>

The new guidance documents, published 21 Aug 2020, make recommendations for all healthcare settings including the private/independent sector. The new guidance considers pathways of differing risk as well as standard precautions alongside those for aerosol generating procedures versus non-aerosol generating procedures. Centres are advised to consider their own pathways and procedures in these contexts and apply appropriate measures. Centres should refer at all times to this PPE guidance. Other local guidelines may apply for NHS centres but are likely to broadly conform with those from PHE.

Whilst ensuring appropriate PPE use, centres should work to conserve stocks and inappropriate overuse should be avoided as PPE remains a national resource issue.

Centres should ensure that they review published national guidelines regularly for updates to ensure that they continue to comply. Centres should include a description of their zones of work and acknowledgement of the PPE needs in their strategy document. In addition, it is recommended that centres maintain a record confirming that all relevant members of staff have undergone training in the proper donning and doffing of PPE.

**d. Equipment**

Where possible centres should consider using equipment that may allow for greater physical distancing, automation or facilitate a more flexible workflow within the department (e.g. use of time lapse devices, computer assisted semen analysis (CASA) and electronic witnessing systems in the laboratory).

Staff should minimise sharing of any equipment where possible and equipment should be cleaned between operators (e.g. microscope eyepieces or keyboards).

**e. Consumables**

Centres should work to ensure that the supply chain for all consumables remains intact. This should include, where necessary, contacting suppliers to ensure availability.

Contingency plans for supply chain failure must be in place for each critical consumable. Particular attention should be given to the supply of laboratory media, which may have short shelf life, embryo safe cleaning products, fertility drugs, liquid nitrogen and gas cylinders containing carbon dioxide, nitrogen, and oxygen. Some products may be in particularly high demand as much of the world reinitiates fertility treatments at a similar time and following a likely reduction in manufacturing. Stockpiling is not advised.

## 4. Operational issues

It is recognised that as centres have resumed activities, experience and local conditions will change practice as time goes on. It is important that centres maintain vigilance over their own activities as well as prevailing national and regional COVID-19 developments. Whilst following safe reconfiguration of services, centres should recognise the need to respond to local restrictions which may require a change or reduction in some activities.

### a. Scheduling of appointments and procedures

In order to minimise the footfall through centres and facilitate physical distancing it is important to keep visits and the time spent in the clinic to a minimum. It is recognised that this will reduce work capacity in many centres and some measures may include an element of compromise. Risk assessment should be undertaken where necessary.

- **Number of visits:** centres should advise that only individuals required for each appointment should attend (this may include those accompanying disabled patients or interpreters when needed). As much activity as possible should be undertaken by phone or video call. Centres must ensure that appropriate confidentiality and clinical record keeping is maintained at all times.

Consideration may include condensing visits into a single pathway e.g. scan and blood tests can be undertaken without a return to the waiting area and “drop-in” visits discouraged. Treatment protocols should be reviewed to minimise the number of clinic visits required for monitoring and treatment. Persons accompanying patients home after procedures such as oocyte retrieval should remain outside the clinic.

In recognising the importance to patients and their partners of attending key episodes together e.g. embryo transfer, clinics need to consider local accommodations such as waiting room space and clinic footfall when making that provision.

- **Duration of visits:** centres should aim to encourage patients to attend at their given appointment time and should aim to avoid them waiting. Consideration should be given to length of appointments to allow for unexpected delays, ensuring they are well spaced with the addition of a buffer to allow catch-up if needed. Protocols should be reviewed to reduce the length of time spent in the department by individuals e.g. drop-off appointments for semen analysis.

### b. Working patterns

Working patterns within centres have needed to change to accommodate social distancing measures to ensure safety for staff and patients. Staff returning to centres have needed to adopt a flexible approach to working and managers have needed to find a balance between allowing flexibility and facilitating collaboration for all staff. Risk assessments of the clinic and departments to demonstrate alternative ways of working should be in place and reviewed regularly, particularly if staff availability fluctuates. This may involve:

- splitting the workforce into teams to work across a longer period of the day and to ensure that staff numbers are restricted in the clinic.
- to work shifts and avoid crossover of staff for long periods of time
- to work virtually where possible to avoid patients coming into the clinic.
- to work from home where possible and to avoid staff numbers in highly populated areas such as administration offices

**c. Staff responsibilities**

Fertility clinic staff have been identified as key workers and with that has come a responsibility to the wider community to ensure that they comply with local and national infection control measures at home, while travelling to and from work and in social situations. They must ensure proper reporting of symptoms and contacts as well as submitting to testing as appropriate, to reduce the risk of bringing COVID-19 into the healthcare setting.

Physical distancing within work spaces is equally important where possible to reduce the risk of spread of infection within staff groups as workload increases. Public Health England (PHE) guidance updated 21 Aug 2020 recommends that in NHS hospital trusts and private hospitals all staff, clinical and non-clinical wear a facemask in all settings which are not designated COVID-19 secure and where formal PPE is not required.

<https://www.gov.uk/government/publications/wuhan-novel-coronavirus-infection-prevention-and-control/new-government-recommendations-for-england-nhs-hospital-trusts-and-private-hospital-providers>

**d. Maintaining safe working practices**

- Maintain working from home where feasible and effective and when confidentiality can be maintained
- Consider implementing shifts working with two (or more) teams) and adjusting working hours reduce the number of staff present in the centre at any one time.
- Review clinic zones in conjunction with work scheduling to avoid staff moving between zones more than necessary
- Consider scheduled breaks in the working day and where those may be taken in order to reduce rest area overcrowding
- Consider staff protection (see above) when close working is unavoidable e.g. some laboratory spaces/practices
- Risk assess potential COVID free zones

**e. Staffing considerations**

Centres should anticipate and plan for staff shortages as a result of redeployment, illness or the need to self-isolate. It is possible that anaesthetic staff may be deployed to critical areas in the event of increasing hospital admissions, and centres should make contingency plans to care for patients requiring procedures under sedation/anaesthesia.

**f. Track and Trace**

Centres should ensure cases or suspected cases are reported appropriately to facilitate a “track and trace” programme to ensure early identification of an outbreak (2 or more test-confirmed or clinically suspected cases in staff or patients) within a centre.

**g. Training and research**

Many centres are involved in training whether through formal training programmes or local skills training and CPD. COVID-19 work patterns should not be a barrier to continuing to support training in

all areas of practice. Consideration to work patterns must include the potential for inclusion of relevant trainees. Physical distancing rules apply and measures put in place to reduce risk where that is not feasible. Since changes in practice are likely to exist for some time this is an important training period for both new and existing practitioners and indeed, they may bring useful ideas and insights from experience elsewhere.

The resumption of research within centres is likely to have been staged depending on personnel, the programme itself and national/local research priorities. It is appropriate and necessary to continue to support research in the clinical setting where it can be undertaken safely within a centre's COVID policy.

#### **h. Reciprocal agreements**

Contingencies should be in place to allow for unexpected staff reduction and centres should investigate the feasibility of sharing staff across facilities. This may occur within groups, within or across NHS Trusts or for stand-alone centres by arrangement with their neighbours. It is recommended that the breadth and scope of reciprocal arrangements between centres should be reviewed, to incorporate staffing, consumable provision and general support, where applicable and where possible.

Whilst an initial peak of the COVID-19 pandemic has passed in the UK, a "second wave" of infection is generally considered to be approaching. Since the incidence of asymptomatic infection and population immunity can only be estimated, the severity of such a second wave and the effect on workplaces where staff have previously been relatively protected should be considered. Centres need to take into account the potential for a number of staff being sick or isolating at any one time. The volume and complexity of work undertaken should be matched by an appropriate number of staff with the appropriate skill mix.

#### **i. SOP & policy updates**

In March, Persons Responsible were required by the HFEA to confirm that they had a COVID 19 strategy in place and that this was formally documented. Centres' strategy documents should encompass the points indicated within this guidance, and in order to fulfil the requirements of the HFEA, as specified within the self-assessment questionnaire, demonstrating how treatment is being offered safely.

Centres should have in place COVID-19 specific documentation to reflect changes in their practice. This should include the relevant risk assessments undertaken.

Many lessons will have been learnt during the COVID-19 pandemic and centres may need, for the foreseeable future or permanently, to change working practices and SOPs may need to be updated in a stage-wise fashion.

BFS and ARCS would be very pleased to hear from centres who wish to share new best practice developed from this time of change.

## **5. Information, conduct, consent and support**

### **a. Patient information**

Centres are responsible for ensuring patients are given timely information before considering treatment. Patient information must set patient expectations regarding the adaptations within the centre and in treatment pathways and procedures and include risks of attending the clinic and proceeding with treatment, during the COVID-19 pandemic.

While data remains limited, there is growing evidence that the coronavirus has low impact on early pregnancy and perinatal risk. The RCOG, which is closely monitoring international evidence as it emerges, has advised that pregnant women do not appear to be more likely to be seriously unwell than

other healthy adults if they develop coronavirus. Moreover, they have stated that there is no evidence to suggest an increased risk of miscarriage, and if the mother contracts the virus it is unlikely that it would cause problems with the baby's development. A recent gene expression study explored the possible risks of the SARS-CoV-2 virus on pregnancy and foetal health. Patterns of expression of the genes Angiotensin-converting enzyme 2 (ACE2), which codes for the SARS-CoV-2 receptor, and TMPRSS2, which codes for a molecule associated with replication and infection, were expressed by the developing pre-gastrulation human embryo. The researchers concluded that the early embryo could be susceptible to COVID-19, if maternal infection was present and that further studies were required (9). Clinicians should remain vigilant by accessing resources such as webinars and published literature to support their patients in risk minimisation.

Centres should ensure patients have access to information regarding the following:

- Signposting to current Government guidance relating to minimising spread of infection
- The symptoms of Covid-19 and what to do if concerned
- Clinic policy on screening and testing for Covid-19
- The safety measures within the clinic (e.g. physical distancing, using PPE as described and washing and sanitation of hands)
- The triage process in place at the clinic
- Any clinic policy on prioritisation of patients and rationale for this
- Clinic policy regarding attendance of partners or companions for the different types of appointments
- Clinic policy in the event of suspected or confirmed infection, according to stage of treatment.
- The availability of online resources to minimise clinic visits (e.g. online consent completion, virtual appointments, patient information, counselling etc).
- Information about the effects of coronavirus infection during pregnancy (4, 8)

#### **b. Staff information**

Centres should ensure that staff are kept abreast of changes to national, HFEA and clinic COVID-related policies as they develop and change. This should include any adaptations made to the clinic or its operations and include risks of attending the clinic and treating patients during the COVID-19 pandemic and the actions being taken to mitigate them.

#### **c. Staff conduct**

All clinic staff have a responsibility to minimise the spread of COVID-19, to follow Government guidance and to implement specific safety measures relating to their conduct and interactions with others. Staff should maintain up to date knowledge of, and adhere to, Government guidelines and clinic policies established to stop the spread of COVID-19.

#### **d. Patient and staff support**

- **Patients**

Patient support during the pandemic remains critical. Staff should be aware that there may be heightened anxiety around COVID-19 (3). Centres should provide access to appropriate self-help and counselling in order to cater for this and the potential anxieties created by both the delays already experienced and by undergoing treatment during the pandemic.

Centres should signpost to and assist patient support groups where they exist. These groups should be encouraged to meet through social media and video conferencing.

- **Staff**

As staff return to work or to previous clinical roles, they may require some reorientation, refresher training, competency assessment and support. This should be judged on a case by case basis, and appropriate support provided as required.

Prior to their involvement in treatment services, staff are expected to ensure that they are competent and confident enough to be able to operate a safe and effective service. Staff should be encouraged to request support from clinic leaders for themselves or colleagues as required to achieve this.

Staff support policies and procedures should be in place to ensure that:

- The mental well-being of staff is considered and reviewed as necessary
- Staff support and counselling systems are in place should they be needed
- Staff continue to be engaged and encouraged to provide feedback on progress and potential improvements to treatments during the COVID-19 pandemic
- Peer support is available as needed
- Staff safety in the workplace is paramount and centres should ensure that risk assessments are in place where appropriate to minimise the risk of infection.

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## Disclaimer

This guidance represents the views of ARCS/BFS, which were reached after careful consideration of the scientific evidence available at the time of preparation. In the absence of scientific evidence on certain aspects, a consensus between the relevant members of the COVID-19 working group and the Executive teams has been obtained. It is produced as an aid to good clinical practice and clinical decision making.

ARCS/BFS are not liable for damages related to the use of the information contained herein. We cannot guarantee correctness, completeness or accuracy of the guidance in every respect.

The advice expressed herein is not binding on professionals working in the field of human reproduction and embryology, however it represents best practice in the view of the BFS and ARCS.

Please be aware that the evidence base for COVID-19 and its impact on infertility patients, pregnancy and related healthcare services is developing and the latest data or best practice may not yet be incorporated into the current version of this document. ARCS and BFS recommends that any departures from local clinical protocols or guidelines should be fully documented in the patient's case notes at the time the relevant decision is taken.

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## **Appendix 1:**

### **Triaging Questionnaire for COVID-19**

If you have had COVID-19 infection and recovered, how long ago did you test positive??

Have YOU or YOUR PARTNER or ANY MEMBER OF YOUR HOUSEHOLD had any of the following symptoms in the last 2 weeks

1. Fever (feeling hot or a temperature above 37.5 degrees Celsius)
2. Persistent cough
3. Loss of the sense of smell
4. Loss of the sense of taste

Have YOU been in known contact with anyone in the last 2 weeks who has any of these symptoms or has been diagnosed with COVID-19? Have YOU or YOUR PARTNER or ANY MEMBER OF YOUR HOUSEHOLD been diagnosed with COVID-19 in the last 14 days?  
COVID-19?

If you have recently travelled from a country not included in the travel corridors exemption list, have you completed the requisite period of self-isolation?

