



**Academy of Clinical Embryologists- India**  
**Good Laboratory Practices**  
**For**  
**Assisted Reproduction Technology Laboratories in view of COVID-19**

COVID-19, as the disease is now known, has been declared a global pandemic by the World Health Organization. There have been over 100,000 cases throughout the world and the WHO expects the virus to emerge in every country. At this point, not a great deal is known about the impact of COVID-19 on reproduction and pregnancy (ASRM, ESHRE).

Academy of Clinical Embryologists recommends that each state follow their respective public health authority directives.

In view of the COVID19 outbreak, ACE recommend its fellow members especially Embryologists and other laboratory staff to strictly follow the [Good Laboratory Practices](#) and [Universal Precautions](#) given by WHO, ESHRE, and ICMR.

In addition to the infection prevention and control strategies such as washing hands, avoiding contact with people with respiratory illnesses, following steps may be taken by the ART laboratory.

- 1) Educate all laboratory staff and ancillary staff (those who take care of cleaning) about the COVID-19 infections and the clinic policies.
- 2) All individuals entering the clinic (patients/accompanying persons and staff) should be advised to wash their hands on arrival into the clinic.
- 3) Encourage laboratory staff to wash hands often with soap and water for at least 20 seconds. All Embryology and Andrology laboratory staff should wear gloves (powder free, nitrile or as recommended by the clinic policy) during the follicular fluid scanning and semen preparation procedures.
- 4) Meticulous cleaning of IVF, Andrology laboratories, Semen collection room and egg recovery suit with an embryo safe disinfectant on a daily basis should be done. This should specifically include equipment areas where hand touches are frequent such as laboratory door handles, microscope focus knobs, micromanipulator joy sticks, and injector, incubator doors etc (Disinfectant wipes are another option for these areas).
- 5) Wiping exterior of semen jars with embryo safe disinfectants should be practiced before bringing them into andrology labs.
- 6) Quarantine of the frozen gametes and embryos should also be done to a separate tank for those patients suspected of having a history of travel to a region where infection is prevalent.
- 7) Keep the egg recovery of those patients (as mentioned in point 6) as the last case of the day and follow the protocols as for the infectious cases.
- 8) If you plan to do a semen back up – do it in a quarantine tank
- 9) Cleaning/disinfecting/wiping the outer surfaces of any supplies of consumables/disposables/media etc should be done at the time of delivery of these goods at the reception only.

- 10) Make sure that the laboratory has enough supplies in case of a break in supply chain.
- 11) Clinics are encouraged to do the freeze all policy to avoid the patient crowd.
- 12) Remote options such as for consent signing, tele medicine to avoid non-essential visits may be incorporated in the fertility clinics.
- 13) If the laboratory staffs are involved in patient counselling or contacts, make adequate precautions such as wearing a disposable garment above the laboratory clothes and face masks (both parties in counselling). Use of clean room clothing and disposal should be done as per the good laboratory practices.

NB: The studies show that human coronaviruses such as Severe Acute Respiratory Syndrome (SARS) coronavirus, Middle East Respiratory Syndrome (MERS) coronavirus or endemic human coronaviruses (HCoV) [can persist on inanimate surfaces like metal, glass or plastic for up to 9 days, but can be efficiently inactivated by surface disinfection procedures with 62-71% ethanol, 0.5% hydrogen peroxide or 0.1% sodium hypochlorite within 1 minute](#). Other biocidal agents such as 0.05e0.2% benzalkonium chloride or 0.02% chlorhexidine digluconate are less effective (Kampf G et al. 2020).

#### References:

1. G. Kampf, D. Todt, S. Pfaender, E. Steinmann, Persistence of coronaviruses on inanimate surfaces and their inactivation with biocidal agents, Journal of Hospital Infection, Volume 104, Issue 3, 2020, Pages 246-251,
2. <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>
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4. <https://www.acog.org/Clinical-Guidance-and-Publications/Practice-Advisories/Practice-Advisory-Novel-Coronavirus2019>
5. <https://www.asrm.org/news-and-publications/news-and-research/press-releases-and-bulletins/covid-19-suggestions-on-managing-patients-who-are-undergoing-infertility-therapy-or-desiring-pregnancy/>