

## Impact of Covid-19 on Fertility Services

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At this moment, nearly each and every country in the world is affected with the novel SARS-CoV-2 corona virus disease (COVID-19). The current global pandemic declared by WHO on 11 March 2020 is spreading at an increasingly dangerous rate. It has been observed that the disease is particularly deadly in vulnerable population and the whole world is finding it difficult to cope up with the problem. Infection rates and deaths are found alarmingly high among health care professionals worldwide. So, it is obvious that it will have a disappointing impact on fertility services which is considered not essential.

Since the beginning of the pandemic, there was confusion among the health care providers regarding management of fertility services. On 17<sup>th</sup> March the American Society for Reproductive Medicine (ASRM) issued early recommendations, updated later on 30<sup>th</sup> March suggesting suspension of initiation of new treatment cycles for achieving pregnancy<sup>1</sup>. ASRM also recommended to cancel planned embryo transfers and to suspend non urgent diagnostic procedures including elective surgeries. They suggested to use telemedicine services to minimize in person interaction. However, they recommended that only patients who are already undergoing cycle stimulation should complete their treatment, but advice to cryopreserve their embryos and not receive a fresh embryo transfer. The European Society of Human Reproduction & Embryology (ESHRE) on 19<sup>th</sup> March advised all infertile patients considering on planning treatment to avoid becoming pregnant at this time as a precautionary approach. However, there was no strong evidence of negative effects of Covid-19 on pregnancy in the early

stages. Just like ASRM, ESHRE also suggested to defer pregnancy with oocyte or embryo cryopreservation<sup>2</sup>. Recommendations to avoid pregnancy are adopted by most of the fertility societies over time as the pandemic continues. Nearly all reproductive medicine societies recommended a more or less similar guideline endorsing cessation of infertility services, some granting exemptions for special circumstances, such as oocyte or sperm cryopreservation procedures in patients planning to undergo chemotherapy or radiation<sup>3</sup>. It is also attributed to a few additional factors, including uncertainties about adverse outcomes<sup>4</sup> and worries about the capacity of providing fertility services in a pandemic situation. The possibility of risks, mainly the birth defects was a primary concern at the outbreak of Covid-19 pandemic. Some unique birth defects were identified in the 2015 Zika virus epidemic which made the fertility specialists and clinics to be more cautious in handling their patients. However, the data received so far do not indicate any fetal involvement<sup>5</sup>.

The Covid-19 had a disastrous impact on fertility services worldwide. Almost all of the fertility centers were closed or became nonfunctional and eventually switched on to Telemedicine services. Not only the health care providers and the patients became confused and panicked, there was restriction of movements including lockdown imposed by many countries. The International Federation of Fertility Societies (IFFS) tried to provide an international guidance with relevant links. They conducted a survey and publish the report from 97 countries including 207 individual centers<sup>6</sup>. In 75% of countries, infertility services were not regarded as an essential service that

should be continued through the pandemic. ART centers were completely closed or offering only limited access for special circumstances were reported from 82% countries. 51% of individual centers reported to continue limited ART services<sup>6</sup>. Apart from that, many centers failed to provide any fertility services as many of their health care providers were affected with Covid-19.

As the pandemic progressed, many fertility centers tried to reopen in South East Asian region. The eventual resumption of fertility care worldwide was in line of the declining tendency of epidemiological curves of incidence. However, there was shortage of personal protective equipment (PPE) and many health care providers were not trained enough to use those properly. Most of the centers had to invest to reorganize their consultation and waiting lounges and to educate patients regarding safety protocols of Covid-19. Several centers started to offer limited services like ovulation induction and intrauterine inseminations (IUI) by August 2020 in Bangladesh. Infection prevention and control (IPC) protocols and mandatory social or physical distancing was difficult to maintain specially when health care providers come in close contact with the patient. A few of the centers resume their elective procedures by September 2020 in Bangladesh. ART in small group was conducted by a few centers during the last 2 months. Recommendations related to resuming of Laboratory operations such as thorough cleaning and QC validations and maintenance protocols were difficult to manage by many centers including proper supply of consumables and disposables. Routine screening of all healthcare providers and patients undergoing any intervention became painful and expensive to maintain in regular intervals. However, the eventual resumption of fertility services is again at risk with emergence of a second wave currently affecting Europe and USA in a devastating way. Worldwide shortage

of PPE and relocation of health care providers to emergency Covid duties made it more difficult as fertility services were considered non-essential globally. Many of the patients lost their jobs or got reduced payment in developing countries which made the situation worse. Many of the big hospitals considered it difficult to totally isolate the fertility services from other areas dealing with Covid patients. Many of the patients lost their relatives and became psychologically devastated. In a study by Manchester University, UK, many patients were disappointed to cope with the cessation of fertility services<sup>7</sup>. Total uncertainty in Covid-19 pandemic continues to go on and many patients started their treatment to get rid of their frustration for childlessness in spite of the risk of being infected with COVID-19 from healthcare personnel.

Undoubtedly health care services of most of the countries are overloaded now, and several countries are implementing their second lockdown to control the second wave. Many fertility service providers and staffs are now relocated in Covid facilities to cope up with the devastating pandemic. We can just hope that temporarily suspended fertility services can be resumed fully in near future to meet the hope of millions of childless couples worldwide.

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