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**IVF TREATMENT PRE- AND POST- THE ASRM COVID-19 PAUSE**

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**OBJECTIVE:**

The coronavirus (COVID-19) pandemic has forever reshaped the United States health care system. However, assisted reproductive technology (ART) treatment remains an essential form of medicine. Reproductive practices have since incorporated vigilant practices regarding social distancing, ample use of Personal Protective Equipment (PPE), and consistent decontamination protocols in order to mitigate risk of COVID-19 infection. Altogether, changes to standard operating procedures within ART treatment centers are anticipated to support patient safety without compromising quality of reproductive care. Finally, there is ample evidence of the mental health burden stemming from this pandemic with regard to anxiety and depression in both healthcare workers and patients. Given the current uncertainty, our study evaluates IVF cycle outcome in a New York City patient cohort prior to and subsequent to the ASRM COVID-19 task force's recommended treatment pause.

**DESIGN:**

Retrospective cohort analysis

**MATERIALS AND METHODS:**

The study includes patients who underwent a single, euploid frozen-thawed embryo transfer (FET) from January 1<sup>st</sup>, 2020 to May 18<sup>th</sup>, 2020. Cohorts were separated into two groups based on period of IVF treatment (Group 1: Treatment prior to the COVID-19 pandemic pause; Group 2: Treatment subsequent to the COVID-19 pause). Primary outcome included early pregnancy rates. Chi squared test was used and statistical significance was considered at  $p < 0.05$



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## RESULTS:

A total of 601 single, euploid FET cycles in which pregnancy outcomes coming prior to the COVID-19 pandemic pause (n=526) were compared to outcomes subsequent to COVID-19 (n=75). No differences were found in early pregnancy rates among cohorts (Table 1).

Table 1: IVF Treatment Cycle Outcomes During COVID-19

Groups	Positive Pregnancy Count
Group 1: Prior to Covid-19 Pause (n=526 FET Cycles)	396 (75.2%)
Group 2: Era of Covid-19 (n=75 FET Cycles)	59 (76.2%)

\* p-value = 0.75

## CONCLUSIONS:

The COVID-19 pandemic has placed an unprecedented burden on patients, physicians, and the entire healthcare system. Urgent treatments, including reproductive care, were postponed, as scarce resources needed to be re-directed. Resumption of treatment required modification in workflow, staffing, decontamination protocols, and utilization of PPE. Although the patient experience has changed, our study is first to demonstrate implantation rates were not compromised in an era of COVID-19. Importantly, our preliminary data suggests that the stress and anxiety that pervade modern COVID-era reproductive care do not alter outcomes. With an abundance of caution, a modern fertility clinic can work to “flatten the curve,” abide by guidelines, and deliver safe and effective patient care.