

Telemedicine in IVF Programs

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ABSTRACT

Telemedicine has proven to be a valuable tool in the field of infertility management, allowing healthcare providers to offer remote consultations, monitoring, and support to patients. There are several ways in which telemedicine is utilized in infertility management:

Initial Consultations: Telemedicine enables patients to have their initial consultations with fertility specialists remotely. This saves time and eliminates the need for patients to travel long distances to see a specialist. During these virtual consultations, patients can discuss their medical history, share relevant test results, and receive guidance on further diagnostic tests or treatment options.

Test Result Discussions: Many diagnostic tests, such as blood hormone level tests or semen analysis, can be conducted locally, and the results can be shared electronically with the fertility specialist. Through telemedicine, the specialist can discuss the test results with the patient, explain their implications, and recommend appropriate treatment options based on the findings.

Treatment Planning: Telemedicine allows fertility specialists to develop personalized treatment plans for patients remotely. After reviewing the patient's medical history, diagnostic test results, and any other relevant information, the specialist can discuss the treatment options, such as medication protocols or assisted reproductive techniques (e.g., *in vitro* fertilization), and address any concerns or questions the patient may have.

Medication Monitoring: In some cases, fertility treatments involve medication protocols that require careful monitoring. Telemedicine facilitates remote monitoring of a patient's progress during treatment cycles. Patients can share their salivary estradiol measurements, self-performed US examination through specific Philips devices, symptoms, medication adherence, and any side effects they may be experiencing through virtual check-ins with their healthcare providers. This allows for adjustments to be made in real-time, ensuring optimal treatment outcomes.

Emotional Support: Infertility can be emotionally challenging for individuals and couples. Telemedicine provides an avenue for regular emotional support, counseling, or therapy sessions with mental health professionals who specialize in infertility. These sessions can be conducted via video conferencing platforms, offering a safe and confidential environment for patients to discuss their emotional well-being and cope with the psychological impact of infertility.

Follow-up Visits: After initiating treatment, patients typically require follow-up visits to monitor progress and make any necessary adjustments to the treatment plan. Telemedicine enables virtual follow-up visits, where patients can discuss their experiences, report any changes or concerns, and receive guidance from their healthcare providers without the need for in-person visits unless absolutely necessary.

Introduction

In recent years, the field of medicine has experienced a significant transformation through the integration of telemedicine. Telemedicine, the use of telecommunications technology to provide remote healthcare services, has revolutionized various medical specialties, including the realm of in vitro fertilization (IVF) programs. By leveraging telemedicine, fertility clinics and reproductive specialists have been able to enhance patient care, increase accessibility, and improve the overall success rates of IVF treatments. This article explores the impact of telemedicine on IVF programs and the advantages it offers to both patients and healthcare providers [1].

Improved Accessibility to Specialized Care

One of the key benefits of telemedicine in IVF programs is the improved accessibility to specialized care. Fertility clinics often have a limited number of specialists who are geographically concentrated in urban areas. This poses a significant challenge for individuals residing in rural or remote locations, as they may have to travel long distances to access fertility treatments. Telemedicine breaks down these geographical barriers by allowing patients to consult with reproductive specialists remotely [2]. Through video consultations, patients can discuss their concerns, review test results, and develop personalized treatment plans from the comfort of their homes. This not only saves time and travel costs but also reduces the emotional and physical burden associated with frequent clinic visits [3,4].

Enhanced Monitoring and Follow-up Care

Successful IVF treatments require close monitoring of patients throughout the process. Traditionally, this necessitated frequent in-person appointments for ultrasound scans, hormone level monitoring, and medication adjustments. However, with telemedicine, many aspects of monitoring and follow-up care can be conducted remotely. Patients can use smartphone apps or home monitoring devices to collect data such as basal body temperature, medication adherence, ultrasound with a special dedicated device (Philips, Lumify; Philips Healthcare, Amsterdam, Netherlands), and hormonal fluctuations. This data can be securely transmitted to the healthcare provider, who can remotely assess the progress and make informed decisions regarding treatment adjustments. Telemedicine allows for more frequent monitoring, leading to improved precision and customization of IVF protocols [5-7].

Emotional Support and Counseling

Undergoing IVF treatment can be emotionally challenging for many individuals and couples (<https://www.shadygrovefertility.com/mental-health/>). Telemedicine provides a platform for convenient and readily accessible emotional support and counseling. Patients can engage in virtual support groups, one-on-one counseling sessions, or couples therapy to address their concerns, anxieties, and emotional well-being. The privacy and convenience of telemed-

icine can help reduce the stigma and embarrassment associated with seeking emotional support. Moreover, online support groups allow patients to connect with others who are going through similar experiences, fostering a sense of community and understanding.

Efficient Utilization of Resources

Telemedicine in IVF programs can significantly optimize the utilization of resources, benefiting both patients and healthcare providers. By reducing the need for in-person consultations for routine monitoring and counseling, clinics can allocate their resources more efficiently. This allows them to accommodate a larger number of patients, leading to reduced wait times and improved access to IVF treatments. Additionally, telemedicine can streamline administrative tasks, such as appointment scheduling, prescription refills, and medical record management. Patients can conveniently access their treatment plans, test results, and medication instructions through secure online portals, reducing administrative burdens and improving overall efficiency [8,9].

Post-Treatment Follow-up and Monitoring

Successful IVF treatments are followed by a critical period of post-treatment care and monitoring. Telemedicine plays a vital role in facilitating remote post-treatment follow-up and monitoring, ensuring that patients receive the necessary support and guidance during the early stages of pregnancy. Through virtual consultations, healthcare providers can address any concerns, provide advice on prenatal care, and monitor the progress of the pregnancy. Remote monitoring of hormone levels and ultrasound scans can also help identify any potential complications early on, allowing for timely interventions [4,10-13]. Telemedicine has emerged as a game-changer in the field of IVF programs, revolutionizing.

The Role of Telemedicine in the Clinical Management of Infertile Couples

The clinical management of infertile couples can be complex, time-consuming, and emotionally challenging. However, with the advent of telemedicine, a new era of convenience, accessibility, and personalized care has emerged in the field of reproductive medicine. Telemedicine plays a crucial role in the clinical management of infertile couples, offering a range of benefits that optimize treatment outcomes and patient satisfaction. In this article, we delve into the specific contributions of telemedicine in the clinical management of infertile couples [2,4,10-13].

Remote Consultations and Initial Assessments

Telemedicine facilitates remote consultations and initial assessments, enabling infertile couples to consult with reproductive specialists from their homes or any location convenient to them. Through video conferences, patients can share their medical histories, discuss concerns, and undergo preliminary evaluations with healthcare providers. This initial assessment allows specialists to gather essential

information, recommend appropriate diagnostic tests, and develop personalized treatment plans, all without the need for an in-person visit. Remote consultations save time, reduce travel costs, and provide convenient access to specialized care, particularly for couples residing in remote areas or facing mobility limitations [9].

Access to Fertility Education and Counseling

Telemedicine platforms provide a valuable medium for delivering fertility education and counseling to infertile couples. Informational videos, webinars, and online resources can be easily accessed, empowering patients with knowledge about their condition, available treatment options, and lifestyle modifications that may improve fertility. Furthermore, telemedicine facilitates virtual counseling sessions with reproductive psychologists or counselors, allowing couples to address the emotional stress and psychological challenges associated with infertility. The convenience and privacy of remote counseling encourage couples to seek support and guidance, enhancing their overall well-being during the infertility journey [2,9].

Diagnostic Evaluations and Test Result Reviews

Infertility diagnosis often involves a series of tests, including hormone assays, semen analysis, and imaging studies. Telemedicine simplifies the diagnostic process by enabling couples to undergo these tests locally and securely share the results with their healthcare providers. Through video consultations, specialists can review the test findings, explain the implications, and discuss the next steps in the diagnostic process. This approach saves couples from unnecessary travel and streamlines the evaluation process, leading to more efficient and timely diagnoses [14].

Monitoring and Medication Management

Telemedicine facilitates real-time monitoring of treatment progress and medication management for infertile couples. Through remote monitoring platforms, patients can track fertility indicators such as basal body temperature, ovulation predictor kits, or hormone levels at home. The collected data can then be shared securely with healthcare providers, who can remotely monitor the treatment response, adjust medication dosages, and provide timely guidance. Remote monitoring enhances treatment precision, allows for immediate intervention when necessary, and minimizes the inconvenience of frequent clinic visits [5,6,15].

Fertility Treatment Cycle Coordination

The coordination of fertility treatment cycles often involves careful timing, medication administration, and ultrasound monitoring. Telemedicine simplifies this process by reducing the number of in-person visits required. Treatment protocols, medication instructions, and ultrasound scheduling can be conveyed to patients through secure online portals or virtual consultations. Remote coordination not only reduces the logistical challenges faced by couples but also improves treatment adherence and optimizes the success rates of fertility treatments [16].

Post-Treatment Follow-up and Support

After undergoing fertility treatments such as in vitro fertilization (IVF), post-treatment follow-up and support are crucial for the well-being of infertile couples. Telemedicine enables healthcare providers to remotely monitor patients' progress during the early stages of pregnancy, addressing any concerns and providing guidance on prenatal care. Virtual consultations allow couples to seek immediate support and clarification regarding post-treatment instructions or potential complications. By offering accessible and convenient follow-up care, telemedicine ensures that couples receive the necessary support during this [17].

Laboratory Management of Fertilization and Embryology

Telemedicine plays a significant role in the laboratory management of fertilization and embryology during IVF treatments. Through teleconferencing or video consultations, embryologists can discuss the progress of fertilization, embryo development, and embryo selection with the healthcare team and the infertile couple. Real-time communication allows for immediate decision-making regarding the selection of the most viable embryos for transfer or cryopreservation. This collaborative approach ensures that all stakeholders are involved in the decision-making process, optimizing the chances of successful outcomes [2,18,19].

Embryo Transfer Planning and Guidance

Embryo transfer is a critical stage in IVF treatments. Telemedicine facilitates detailed discussions between the reproductive specialist and the couple regarding the timing and process of embryo transfer. This includes the preparation of the uterine lining, synchronization with the menstrual cycle, and necessary pre-transfer medications. By conducting virtual consultations, the healthcare provider can explain the procedure, address any concerns, and provide guidance on post-transfer care. The couple can feel more informed, prepared, and supported throughout the process, leading to increased confidence and reduced anxiety [20,21].

Supportive Care and Patient Education

Telemedicine platforms offer valuable opportunities for providing supportive care and patient education during the IVF journey. Infertile couples can participate in virtual support groups, where they can connect with others who share similar experiences and challenges. These support groups foster a sense of community, empathy, and encouragement. Additionally, telemedicine allows healthcare providers to offer tailored educational resources, including videos, articles, and interactive tools, to help couples understand the intricacies of the IVF process, manage expectations, and make informed decisions. This comprehensive support system contributes to the emotional well-being and resilience of the patients [22] (<https://www.shadygrovefertility.com/mental-health/>).

Remote Second Opinions and Collaborative Care

In some cases, seeking a second opinion is crucial for infertile couples to explore alternative treatment options or confirm the recommended course of action. Telemedicine offers a convenient and efficient means of obtaining remote second opinions from renowned reproductive specialists or expert embryologists. Through virtual consultations, couples can discuss their medical history, diagnostic results, and treatment plans, receiving expert insights without the need for extensive travel or delays. This collaborative approach enhances the quality of care, as different perspectives can be considered in designing personalized treatment strategies [2,3]. Telemedicine has revolutionized the clinical and laboratory management of infertile couples, significantly improving accessibility, convenience, and outcomes in reproductive medicine. From initial consultations to post-treatment care, telemedicine enhances patient-centered care by providing remote access to specialized healthcare providers, personalized education, monitoring, and support. By leveraging technology, telemedicine transforms the infertility journey, empowering couples with knowledge, reducing barriers, and increasing the chances of achieving successful outcomes in IVF treatments [2].

Comparing Medical and Embryologist Controls of IVF Procedure Steps with Telemedicine Controls: A Non-Inferiority Tool?

Telemedicine has rapidly transformed the landscape of healthcare, including the field of assisted reproductive technology (ART) and in vitro fertilization (IVF). As telemedicine continues to play a significant role in the clinical and laboratory management of infertile couples, it is crucial to evaluate whether telemedicine controls can be considered non-inferior to traditional medical and embryologist controls at each step of the IVF procedure. This chapter examines the comparison between traditional controls and telemedicine controls, exploring the potential non-inferiority of telemedicine as a tool in IVF procedures.

Initial Consultations and Patient Evaluation

In traditional IVF procedures, initial consultations with reproductive specialists involve face-to-face interactions, allowing for a comprehensive evaluation of the couple's medical history, physical examinations, and discussion of treatment options. On the other hand, telemedicine consultations enable remote interactions, where patients can share their medical history, test results, and concerns virtually. While telemedicine consultations may lack the physical examination component, studies have shown that telemedicine evaluations are comparable to in-person evaluations in terms of accurate medical history collection and patient satisfaction. Telemedicine controls have demonstrated non-inferiority in terms of obtaining the necessary information for initiating IVF treatment, making it a valuable tool in the initial stages of the IVF procedure [1].

Diagnostic Tests and Monitoring

Diagnostic tests, such as hormone assays, semen analysis, and imaging studies, are crucial in determining the cause of infertility and tailoring treatment plans. Traditionally, patients would visit a clinic or laboratory for these tests, while telemedicine controls allow patients to undergo diagnostic tests locally and securely share the results with healthcare providers. Studies have demonstrated that remote monitoring of hormone levels and ultrasound scans can be as effective as in-person monitoring, providing comparable outcomes in terms of treatment success rates. Thus, telemedicine controls have shown non-inferiority in diagnostic testing and monitoring, ensuring accurate evaluation and appropriate adjustments to treatment protocols [5-7].

Fertilization and Embryo Development

In traditional IVF procedures, embryologists play a pivotal role in fertilization and embryo development. They closely monitor the progress of fertilization, embryo quality, and select the most viable embryos for transfer or cryopreservation. With telemedicine controls, embryologists can remotely review fertilization and embryo development through video conferencing or image sharing. While it may seem challenging to achieve non-inferiority in this aspect, studies have demonstrated that remote embryology consultations can provide comparable outcomes in terms of fertilization rates, embryo quality, and pregnancy rates. Advanced imaging techniques and telecommunication platforms enable detailed evaluation, allowing for informed decision-making, making telemedicine controls a promising non-inferior tool in this area [18-19].

Embryo Transfer and Post-Transfer Care

Embryo transfer is a critical step in IVF procedures, and close coordination between the healthcare provider, embryologist, and the couple is essential. In traditional controls, couples visit the clinic for the procedure, receiving real-time guidance and support. Telemedicine controls offer virtual consultations to discuss the timing and process of embryo transfer, providing instructions and addressing any concerns remotely. Studies have shown that telemedicine guidance during embryo transfer can achieve non-inferiority in terms of pregnancy rates compared to traditional controls. Additionally, telemedicine allows for post-transfer care and support through virtual consultations, ensuring couples receive necessary guidance and monitoring remotely [20,21]. Telemedicine controls have demonstrated remarkable potential as a non-inferior tool in various steps of IVF procedures. From initial consultations to diagnostic evaluations, fertilization, embryo development, embryo transfer, and post-transfer care, telemedicine has proven comparable outcomes to traditional controls. While telemedicine may lack certain aspects of physical

The Future Perspectives of Telemedicine in Both the Clinical and Laboratory Management of IVF Programs are Promising, with Several Potential Advancements and Benefits on the Horizon [1,4,9,13]

Integration of Artificial Intelligence (AI)

AI technologies have the potential to enhance telemedicine in IVF programs. Machine learning algorithms can analyze large amounts of patient data, such as medical histories, diagnostic results, and treatment outcomes, to provide personalized treatment recommendations. AI-powered systems can assist in embryo selection, predicting success rates, and optimizing treatment protocols based on individual patient characteristics.

Remote Monitoring Devices

The development and utilization of advanced remote monitoring devices specifically designed for IVF treatments holds great promise. These devices could enable real-time monitoring of hormone levels, temperature, and other fertility indicators, providing accurate data to healthcare providers for timely adjustments and personalized care. Remote monitoring devices may also incorporate sensors to track embryo development and provide information on embryo health remotely.

Virtual Reality (VR) and Augmented Reality (AR)

VR and AR technologies have the potential to revolutionize the patient experience in IVF programs. Virtual reality can create immersive environments to reduce patient anxiety and provide relaxation during procedures. Augmented reality can assist healthcare providers during embryo transfer procedures, overlaying guidance and enhancing precision. These technologies can enhance patient comfort, increase treatment success rates, and improve overall patient satisfaction.

Tele Laboratory and Robotic-Assisted Reproductive Techniques

Advancements in telelaboratory technologies and robotic-assisted reproductive techniques may allow embryologists to remotely perform complex laboratory procedures, such as intracytoplasmic sperm injection (ICSI) or embryo biopsy for preimplantation genetic testing. These technologies can provide access to specialized embryologists and laboratory facilities, increasing efficiency, precision, and standardization in IVF procedures.

Expansion of Telemedicine Services

Telemedicine is likely to expand its reach, making IVF treatments more accessible to individuals in remote or underserved areas. It can bridge the gap between patients and fertility specialists, allowing them to receive expert care without the need for extensive travel. This expansion will increase patient access to IVF treatments, reduce

healthcare disparities, and improve outcomes for a broader population.

Collaborative Platforms and Second Opinions

Telemedicine platforms can facilitate collaborative care among multiple healthcare providers involved in IVF treatments. Specialists from different disciplines, such as reproductive endocrinologists, geneticists, and psychologists, can remotely collaborate, share insights, and provide comprehensive care to patients. Additionally, telemedicine allows for easy access to second opinions from renowned experts, enhancing treatment decision-making and ensuring patients have a wider range of perspectives before embarking on their IVF journey.

Enhanced Data Security and Privacy

As telemedicine continues to evolve, there will be a greater focus on ensuring robust data security and privacy measures. Advances in encryption, secure communication platforms, and adherence to strict data protection regulations will bolster patient trust and confidence in telemedicine platforms for IVF treatments [2]. The future of telemedicine in the clinical and laboratory management of IVF programs is filled with exciting possibilities. Integration of AI, remote monitoring devices, VR/AR technologies, telelaboratory advancements, expanded services, collaborative platforms, and enhanced data security are just some of the potential developments that will further enhance patient care, improve outcomes, and increase accessibility to IVF treatments. With ongoing advancements and research, telemedicine will continue to transform the landscape of reproductive medicine, benefiting patients, healthcare providers, and embryologists alike.

It is Possible with Telemedicine Integrate Follicular Growth and Estradiol Levels Monitoring to Trigger and Pick up Timing? [2,5-7,23,24]

1. It is possible to integrate follicular growth and estradiol levels monitoring through telemedicine to trigger and determine the optimal timing for procedures such as ovulation induction and embryo retrieval.
2. Follicular growth monitoring is a critical aspect of IVF treatment, as it helps assess the maturation of ovarian follicles and guides the timing of procedures. In a traditional setting, patients would visit the clinic for transvaginal ultrasound scans to measure follicle size and monitor their growth. With telemedicine, patients can utilize portable ultrasound devices, often called handheld or pocket-sized ultrasound scanners, to perform ultrasound scans at home under the guidance of healthcare providers.
3. Using telemedicine, patients can securely transmit the ultrasound images to their healthcare providers, who can remotely analyze the follicular growth, measure follicle size, and monitor the progress of maturation. Based on this infor-

mation, the healthcare provider can determine the optimal timing for procedures such as triggering ovulation or scheduling the embryo retrieval. Telemedicine enables real-time communication, allowing for immediate adjustments to treatment protocols and personalized care.

4. In addition to follicular growth monitoring, telemedicine can also integrate the monitoring of estradiol levels, which is an essential hormone for assessing ovarian response and predicting the readiness of follicles for procedures. Patients can use home-based estradiol testing kits to collect a small blood sample and measure their estradiol levels. The results can be shared securely with healthcare providers via telemedicine platforms.
5. By integrating follicular growth monitoring and estradiol level monitoring through telemedicine, healthcare providers can closely track the progress of ovarian stimulation remotely. They can provide timely guidance on medication adjustments, trigger ovulation at the appropriate time, and schedule procedures with precision. This approach not only reduces the need for frequent in-person clinic visits but also ensures that patients receive individualized care based on their unique response to ovarian stimulation.
6. It is important to note that while telemedicine facilitates remote monitoring, there may still be instances where in-person visits to the clinic are necessary. For example, some clinics may require patients to visit for certain procedures, such as administering the trigger shot or performing the embryo transfer. However, the integration of follicular growth and estradiol levels monitoring through telemedicine can significantly reduce the number of in-person visits and enhance the convenience and efficiency of IVF treatments.

It is Possible to Better Recruit Oocytes from Controlled Ovarian Stimulation by Telemedicine Rather Than with the Presence of Medical Assistance? [2,5-7,23,24]

1. Recruiting oocytes from controlled ovarian stimulation (COS) in IVF treatments typically involves close monitoring and adjustments to medication dosages based on the individual's ovarian response.
2. While telemedicine can provide remote monitoring and guidance, the presence of medical assistance during COS procedures is still essential for ensuring optimal outcomes.
3. During COS, patients undergo ovarian stimulation with fertility medications to promote the development of multiple follicles. The progress of ovarian stimulation is monitored through transvaginal ultrasound scans and hormone level measurements. Healthcare providers closely assess the follicular growth and adjust medication dosages accordingly to optimize the number and quality of oocytes retrieved.

4. While telemedicine can facilitate some aspects of monitoring, such as remote consultations and the use of home-based ultrasound devices for follicular measurements, it may not fully replace the need for medical assistance during COS. Here are a few reasons why the presence of medical assistance is important:

- a) **Technical Expertise:** Performing transvaginal ultrasound scans and accurately measuring follicular growth requires specific technical expertise. Trained medical professionals have the experience and skill to perform these scans accurately, ensuring reliable results for determining the appropriate time for oocyte retrieval.
- b) **Procedural Guidance:** During COS, medical professionals provide guidance on medication administration, ensuring patients follow the prescribed protocols accurately. They can address any concerns or questions that arise during the process and provide instructions for managing any potential side effects.
- c) **Adverse Event Management:** In some cases, patients may experience complications or adverse events during COS. Medical professionals are equipped to recognize and manage these situations promptly. Their presence ensures immediate access to appropriate medical intervention in case of emergencies or unforeseen circumstances (Tsampras N, et al. [2]).
- d) **Ovarian Response Evaluation:** Determining the appropriate time for oocyte retrieval requires careful evaluation of the patient's ovarian response. Medical professionals assess various factors, including follicle size, hormone levels, and the overall development of the follicular cohort. Their expertise allows for accurate decision-making regarding the optimal timing of the retrieval procedure.

While telemedicine can support remote monitoring and consultations during COS, the presence of medical assistance remains crucial for ensuring the safety and success of the procedure. The combination of telemedicine and in-person medical assistance can provide a comprehensive approach to COS, optimizing patient care, and maximizing the chances of successful oocyte recruitment and retrieval.

Telemedicine is able to Improve the Efficiency of Controlled Ovarian Stimulation by Better FOI and I Less OHSS? [1,2,5-7]

Yes, telemedicine has the potential to improve the efficiency of controlled ovarian stimulation (COS) in several ways, leading to better follicular outcomes and potentially reducing the risk of ovarian hyperstimulation syndrome (OHSS).

Enhanced Monitoring and Individualized Care

Telemedicine enables more frequent and personalized monitoring of patients undergoing COS. Through remote consultations and the use of home-based monitoring devices, healthcare providers can

closely track follicular growth, hormone levels, and ovarian response. This allows for real-time adjustments to medication dosages and treatment protocols, ensuring individualized care and optimizing follicular outcomes.

Timely Intervention and Dosage Adjustments

With telemedicine, patients can communicate their symptoms, concerns, and side effects to healthcare providers in a timely manner. This allows for prompt intervention and dosage adjustments when necessary. By closely monitoring patients remotely, healthcare providers can identify early signs of overstimulation or inadequate response and make appropriate modifications to the COS protocol, reducing the risk of complications and maximizing the chances of successful outcomes.

Minimization of In-Person Visits

Telemedicine reduces the need for frequent in-person clinic visits during COS. This saves patients time and resources, while still ensuring that they receive the necessary monitoring and guidance. By minimizing in-person visits, telemedicine streamlines the process and improves efficiency, allowing patients to undergo COS without significant disruptions to their daily routines or work schedules.

Patient Education and Compliance

Telemedicine platforms provide a means for delivering educational resources, instructions, and reminders to patients undergoing COS. This improves patient understanding of the treatment process, medication administration, and lifestyle modifications. Improved patient education and compliance lead to better adherence to the COS protocol, enhancing the efficacy of ovarian stimulation and reducing the risk of complications [2].

While telemedicine can contribute to improving the efficiency and outcomes of COS, it is important to note that certain aspects may still require in-person medical assistance, such as administering certain medications or performing specific procedures. Additionally, the effectiveness of telemedicine in COS depends on the availability of reliable home monitoring devices and the establishment of clear communication channels between patients and healthcare providers. Overall, by leveraging telemedicine to enhance monitoring, individualize care, and improve patient education, the efficiency of COS can be improved, potentially leading to better follicular outcomes and a reduced risk of OHSS. However, close collaboration between patients and healthcare providers is crucial to ensure safe and successful COS, whether it is done through telemedicine or with the presence of in-person medical assistance.

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Conflict of Interest

"The author(s) declare none".

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