

DEVELOPMENT OF PATIENT-CENTERED ANTAGONIST PROTOCOLS: INCORPORATION OF A SUSTAINED FOLLICLE STIMULANT

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Assisted reproductive technologies provide infertile couples the opportunity to realize their goal of parenthood. However, such technologies come with psychological challenges, especially for couples who require more than 1 treatment cycle to conceive. Recent meta-analytic work has shown that pretreatment anxiety and depression in women significantly reduces the chance of success with IVF/ICSI. Current research aims to explain this association and considers direct (eg, compromised ovarian function) and indirect (eg, increased smoking, premature treatment drop out) effects.

New approaches to controlled ovarian stimulation (COS) are aimed at maintaining high pregnancy rates while improving patient acceptability and overall effectiveness. The use of gonadotropin-releasing hormone (GnRH) antagonists to suppress premature luteinizing hormone surges with shorter treatment, fewer injections and side effects, and a reduced risk for ovarian hyperstimulation syndrome is a major step forward in IVF/ICSI. More recently, the development of the first sustained follicle stimulant, corifollitropin alfa, represents another significant advance in the reduction of the treatment burden associated with ovarian stimulation protocols.

Corifollitropin alfa is a new recombinant fertility hormone. This heterodimer glycoprotein consists of an alpha subunit common to the gonadotropins and a beta subunit composed of the human FSH beta subunit extended by the carboxy-terminal peptide of the beta subunit of human chorionic gonadotropin. Corifollitropin alfa has different pharmacokinetic properties but similar pharmacological features to conventional FSH. Thus, a single injection of corifollitropin alfa can initiate and sustain follicular growth for 7 days.

In the recently completed phase III ENGAGE trial, the largest randomised trial in assisted reproductive technology to date, a single injection of 150 µg corifollitropin alfa was able to replace 7 daily injections of recombinant FSH (Puregon) when used in a GnRH antagonist protocol. Both the corifollitropin alfa and recombinant FSH arms of the study were associated with high ongoing pregnancy rates (38.9% vs 38.1%) and comparable safety profiles. The incorporation of corifollitropin alfa into COS protocols may reduce treatment burden, treatment errors, and early dropout, resulting in a more acceptable and effective therapy.

While drug therapy advances are one avenue to improve the patient experience, a concerted effort to develop brief psychological interventions that maximize the chance of pregnancy success and reduce drop-outs is needed. Ongoing psychological research is aimed at developing options clinic staff can provide to reduce stress and patient burden to achieve this goal. Unfortunately the journey to success can be quite long. By acknowledging patient stress and burdens while developing novel patient-friendly therapies, we hope to create the optimal conditions for success in IVF.