

## **Individualization of ovarian stimulation protocols**

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Controlled ovarian hyperstimulation (COH) which combines GnRH antagonist co-treatment and GnRH-agonist (GnRHa) trigger has become a common tool aiming to eliminate severe early OHSS and to support the concept of an OHSS-free clinic. However, due to the reported significantly reduced pregnancy rate, efforts have been made to improve reproductive outcome.

One of the suggested optional strategies aiming to improve outcome was the addition of low-dose (1500 IU) HCG bolus, administered, concomitant, 35h or 5 days after the triggering bolus of GnRHa. All these regimens were demonstrated to rescue the luteal phase, resulting in improved reproductive outcome in patients at risk to develop severe OHSS, compared to GnRHa trigger alone, however, with the questionable ability to eliminate severe OHSS. Moreover, following the observations demonstrating comparable or even better oocyte\embryos quality following GnRHa, compared to hCG trigger, and the different effects of LH and hCG on the downstream signaling of the LH receptor, GnRHa is now offered concomitant to the standard hCG trigger dose to improve oocyte/embryo yield and quality. GnRHa and hCG may be offered either concomitantly, 35-37h prior to oocyte retrieval (dual trigger), or 40h and 34h prior to oocyte retrieval, respectively (double trigger). In this presentation, we

discuss the hitherto published studies relating to the different mode of GnRHa combined with hCG trigger- for final follicular maturation, aiming to elucidate how to tailor each mode in order to maximize outcome.