

## Abstract Details

**Session title:** [Session 03: Strategies to improve the outcomes of ovarian stimulation 1](#)

**Session type:** Selected oral communications

**Presentation number:** O-011



### Abstract title:

Optimising follicular development, down regulation, triggering and luteal phase support during *in vitro* fertilisation (IVF): a Delphi consensus

### Biography

Prof. Alviggi has been working as Associate Professor in reproductive medicine at the Fertility Unit of the University of Naples Federico II. Dr Alviggi has published extensively and has been invited to lecture at over 250 international meetings dealing with reproductive medicine and gynaecological endocrinology. He has participated in several national and international (phase II-III) multi-centric, prospective randomised trials. Prof. Alviggi is one of the main co-founders of POSEIDON group and mainly focused his research on reproductive genetic and fertility preservation.

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### Study question:

How can outcomes of *in vitro* fertilisation (IVF) be improved using the evidence-based opinion of clinical experts?

### Summary answer:

Eighteen statements were developed concerning improving outcomes of IVF; 17 statements reached consensus during the first vote and one reached consensus after a second vote.

### What is known already:

The ESHRE 2019 Guidelines provide clinicians with valuable evidence-based recommendations to optimise ovarian stimulation and IVF. However, data from such guidelines are primarily based on randomised controlled trials (RCTs) with highly selected populations that are conducted under very controlled conditions. Furthermore, these trials are limited by the fact that only ~35% of the general patient population has been reported to meet their inclusion criteria.

### **Study design, size, duration:**

A Delphi consensus was conducted to formulate expert opinion on how IVF outcomes could be improved. Step 1: statements/supporting references were discussed/amended by 11 experts. Step 2: 35 experts voted on their level of agreement/disagreement with each statement. Consensus was reached if the proportion of participants agreeing/disagreeing with a statement was >66%. If consensus was not achieved, the statement was revised and re-voted until consensus was reached. Step 3: consensus results communicated to participating experts.

### **Participants/materials, setting, methods:**

Step 1 involved the Scientific Board, comprising the Scientific Coordinator, who developed the initial statements and supporting references (which included RCTs, meta-analyses, systematic reviews, as well as retrospective studies and review articles), and 10 additional experts. The Scientific Board discussed and refined the final statements and references. Step 2 involved 35 experts who rated their level of agreement or disagreement with each statement and were asked to provide reasons for their rating.

### **Main results and the role of chance:**

Consensus was achieved for 18 statements, the most relevant of which are summarised below:

o Follicular development/gonadotropins (n=9 statements):

- Oocyte number and live birth rate (LBR) are strongly correlated; there is a positive linear correlation with cumulative LBR

- Exogenous FSH alone is sufficient for follicular development in normogonadotropic patients aged <35 years

- Different FSH preparations have identical polypeptide chains but different glycosylation patterns, affecting the biospecific activity of r-hFSH

- rLH supplementation demonstrates improved pregnancy rates and cost efficacy versus hMG in patients with severe FSH/LH deficiency

o Pituitary suppression (n=2):

- GnRH antagonists are associated with lower rates of any grade OHSS and cycle cancellation versus agonists

o Final oocyte maturation triggering (n=4):

- hCG represents the gold standard in fresh cycles

- GnRH agonist trigger, in GnRH antagonist protocol, is recommended for final oocyte maturation in women at risk of OHSS

- Current evidence supports significantly higher pregnancy rates with hCG + GnRH agonist versus hCG alone, but further evidence is needed

- The efficacy of hCG triggering for frozen transfers in modified natural cycles is controversial compared with LH peak monitoring

o Luteal-phase support (n=3):

- Vaginal progesterone therapy represents the gold standard for luteal-phase support

### **Limitations, reasons for caution:**

The statements only represent the collective opinion of the experts included. Furthermore, not all statements reached 100% agreement, with some statements reaching consensus even though some participants disagreed with them.

### **Wider implications of the findings:**

This Delphi consensus provides a real-world clinical perspective from a diverse international group of experts. Additional guidance from clinicians on IVF strategies could complement guidelines and policies, and may help to further improve treatment outcomes.

### **Keywords:**

delphi consensus

ivf

ART

ovarian stimulation