

# Is ovulatory-cycle frozen embryo transfer an effective strategy for patients up 50 years of age?

## Cancellation rates in 5.033 transfers comparing artificial vs. ovulatory protocols

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## Introduction

The use of FET in in-vitro fertilisation (IVF) has increased, more than doubling in use in the last decade. Previous studies have not reached a consensus on the optimal protocol for FET when comparing live-birth rates, but have shown a higher obstetric risk for artificial cycle (AC-FET) and a less flexible and higher cancellation rate for ovulatory cycle (OC-FET); however, little data is available on OC-FET for patients aged between 40 and 50, where both ovulation and the luteal phase become more unpredictable, and obstetric risks are higher due to advanced maternal age.

## Material and Methods

Retrospective single-centre comparative clinical study, including 5.033 FET started cycles between Jan-2018 and Dec-2022, excluding patients in menopause and cancelled cycles due to: no embryos available after thawing, medical conditions unrelated to the FET (abnormal TSH levels, fever, infection, hydrosalpinx, etc), patient's decision or treatment mistake.

AC-FET (n=3.974) and OC-FET (n=1.059) groups were homogeneous for patient's age ( $41.2 \pm 4.9$  y Vs  $39.9 \pm 4.5$  y) and body mass index ( $22.8 \pm 4.3$  Vs  $23.0 \pm 3.8$ )

We studied the overall cancellation rate (CR) and the specific reasons for cancellation of the 5.033 started cycles, comparing OC-FET and AC-FET and dividing by age groups: 2.262 patients  $\leq 40$  y (612 in OC-FET, 27% Vs. 1.650 in AC-FET, 73%) and 2.771 patients  $> 40$  y (447 in OC-FET, 16% Vs. 2.324 in AC-FET, 84%).

Clinical reasons for cancellation were classified according to: thin endometrium  $< 6$  mm (TE), spontaneous ovulation (SO) and abnormal endometrium (AE). We used Chi-square test to compare groups ( $p < .05$ ).

## Conclusions

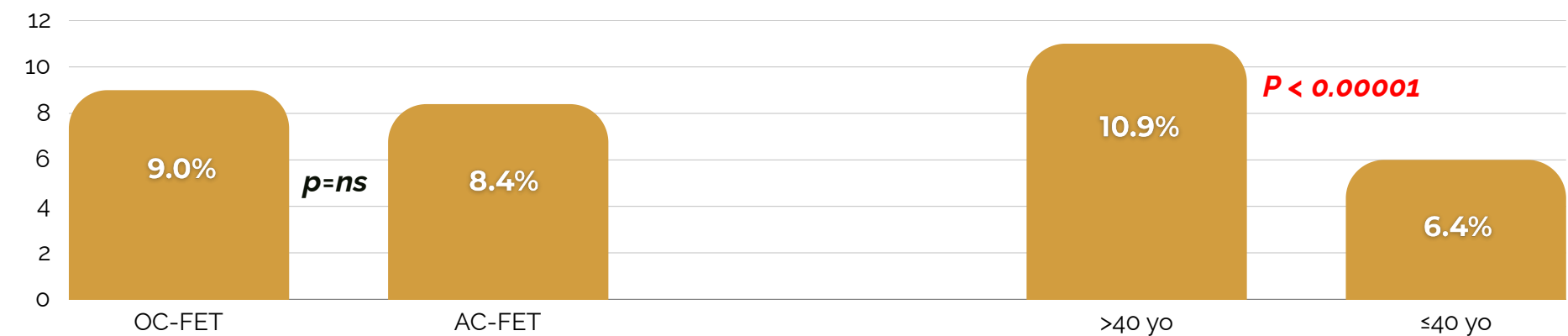
Cancellation rate is comparable at any age when using OC-FET.

AC-FET increases CR in patients  $> 40$  yo but gives a lower CR in patients  $\leq 40$  yo when compared to OC-FET.

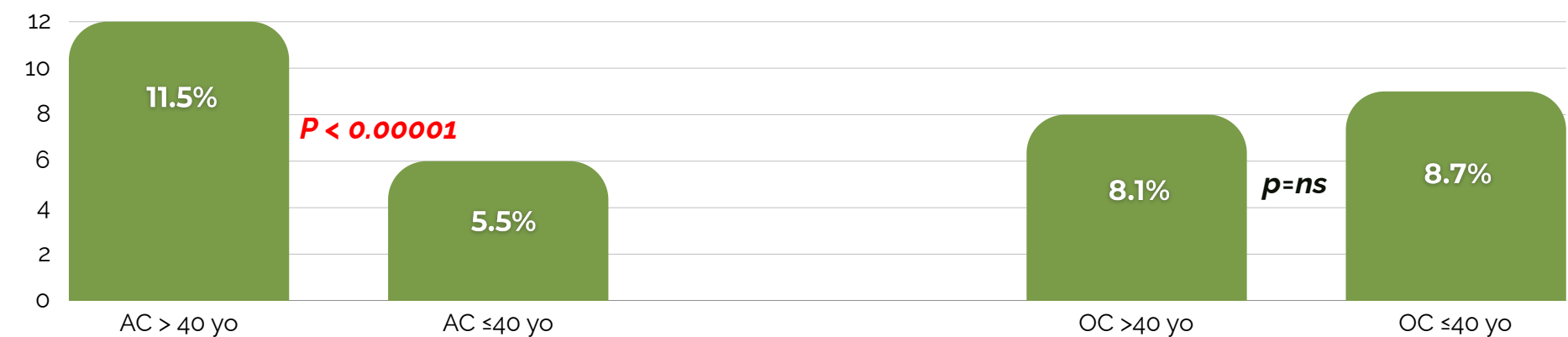
In 40-50y patients, where obstetric risk is high, OC-FET should be encouraged for its lower CR.

## Results

### Global cancellation rates



### AC/OC cancellation rates



### Age groups cancellation rates

