

SIERR Survey Presentation

PGT-A in Practice: A Snapshot of European Embryologist Perspectives

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Conflict of interest

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Why this survey?

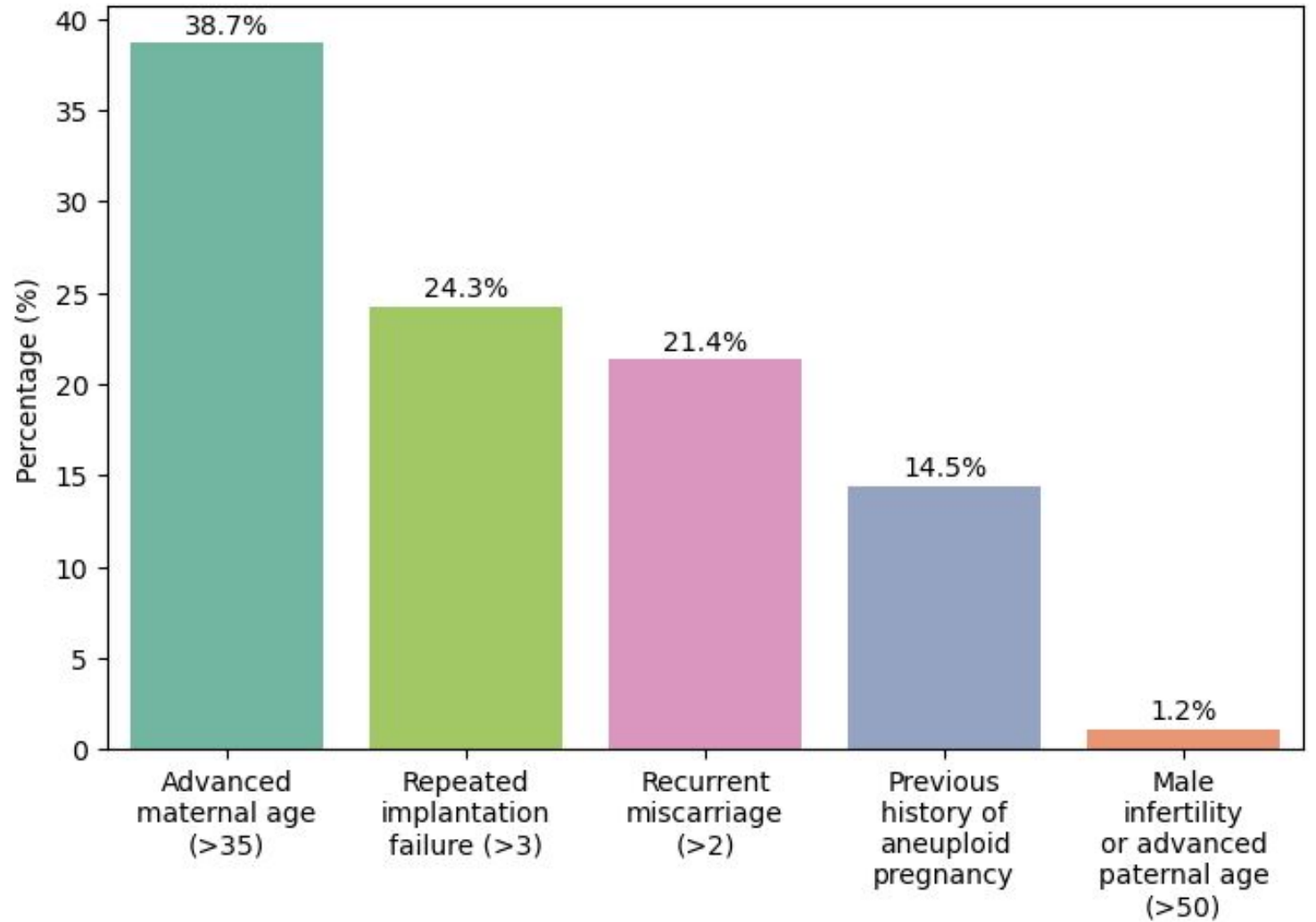
- PGT-A is now widely adopted but remains an area of high controversy in IVF and clearly lacks global consensus
- Capture the spectrum of professional opinions to identify differences in on how (or if) PGT-A is being practiced

Aim: Capture current opinions from embryologists from our 4 societies to inform elements of PGT where we have a consensus or could benefit from clearer working strategies or guidelines

Survey Respondents

- Total responses: 173
- Respondents mainly from 4 countries (Portugal, Spain, Italy and Greece) across Europe.
- Diverse demographics: respondent's gender, clinic type (public/private), experience levels, etc.
- Statistical analysis considering all variable to identify consensus or statistical differences in responses.

What do you think should be the main indication for PGT-A?

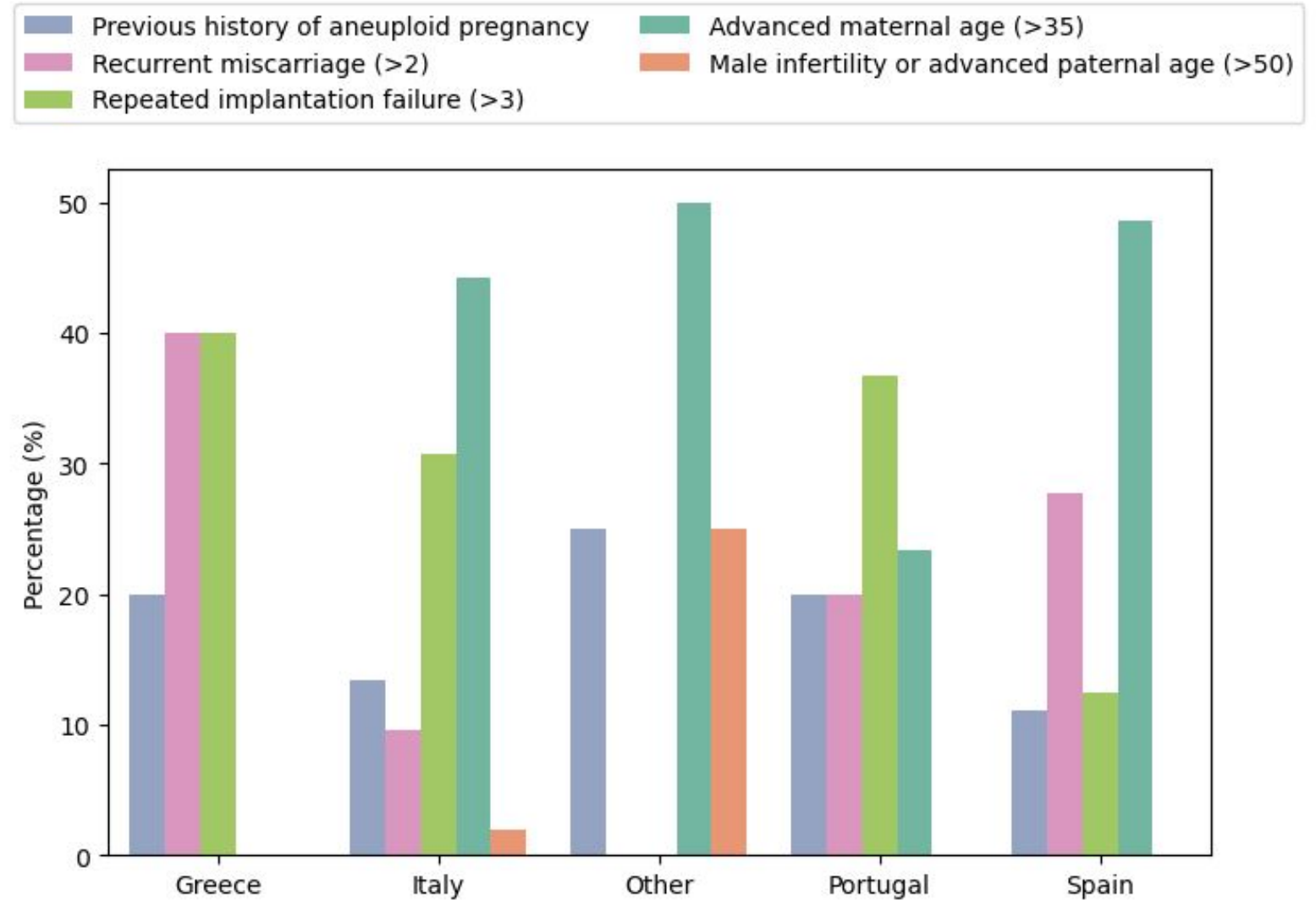


Answers differ (highly significant) by Country ($p=0.000018$)

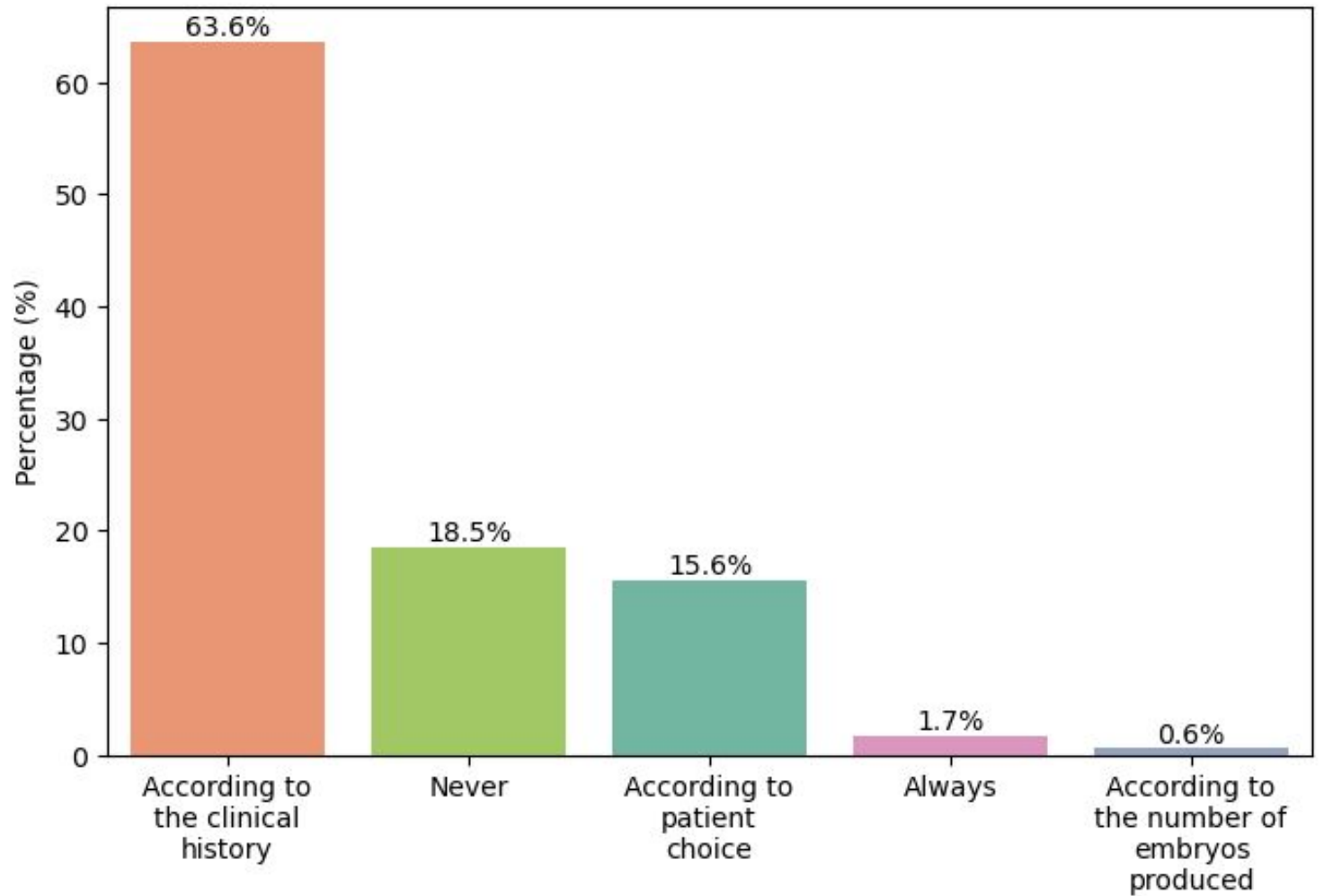
“There is currently no consensus between embryologists from our 4 societies on which infertility aetiologies should be considered the main indication for PGT-A”

WHY?

- Local guidelines
- Cultural differences
- Patient demands



For patients under 35 undergoing IVF, do you feel that PGT-A should be routinely offered by their clinician or clinic?

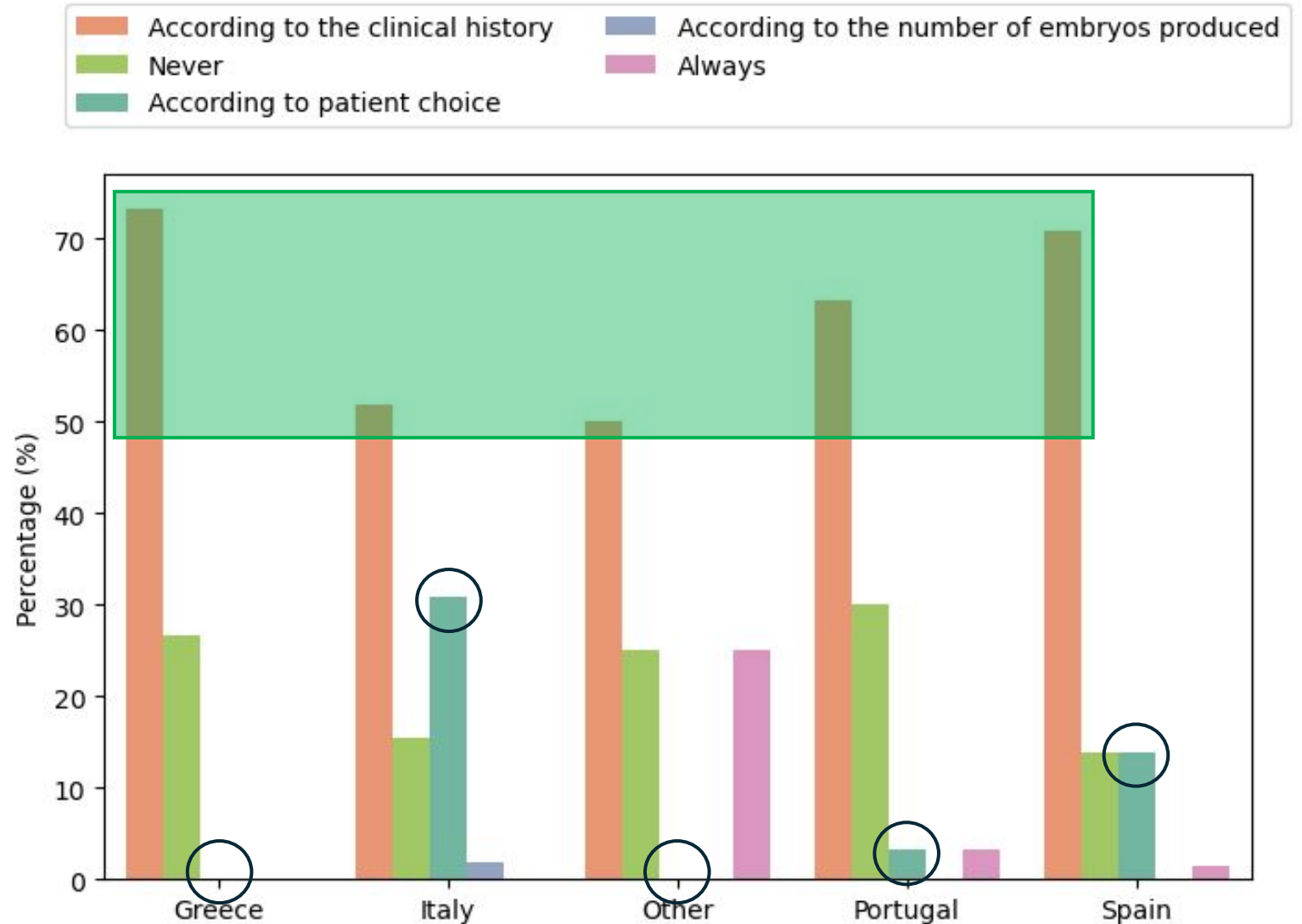


Answers differ by Country ($p=0.002$)

“There is a broad consensus across all 4 societies that a personalised approach should be taken when offering PGT-A to patients. However, differences are observed regarding the patient’s right to choose”

WHY?

“Baseline of opposition to PGT-A”

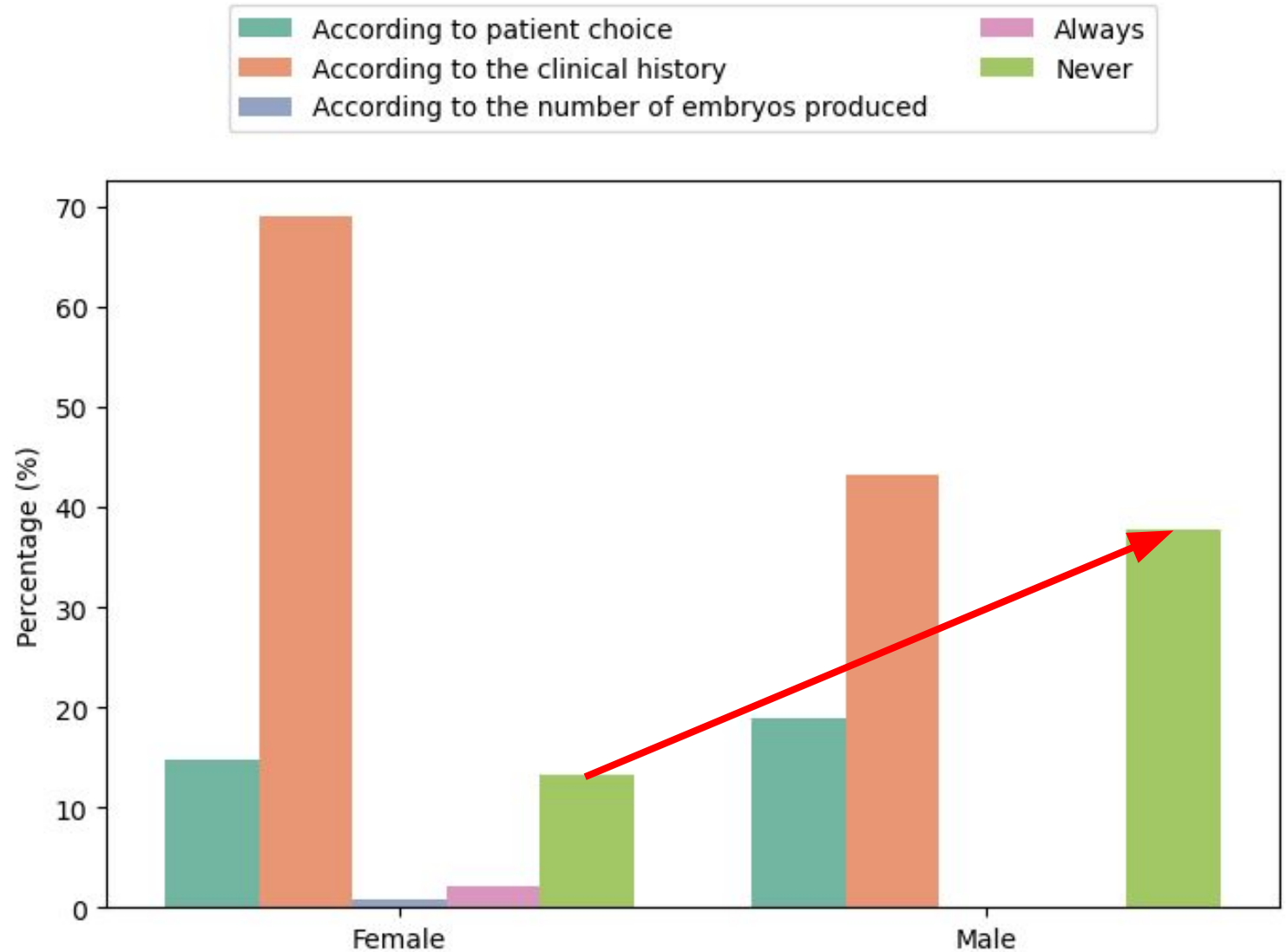


Answers differ by Gender ($p=0.007$)

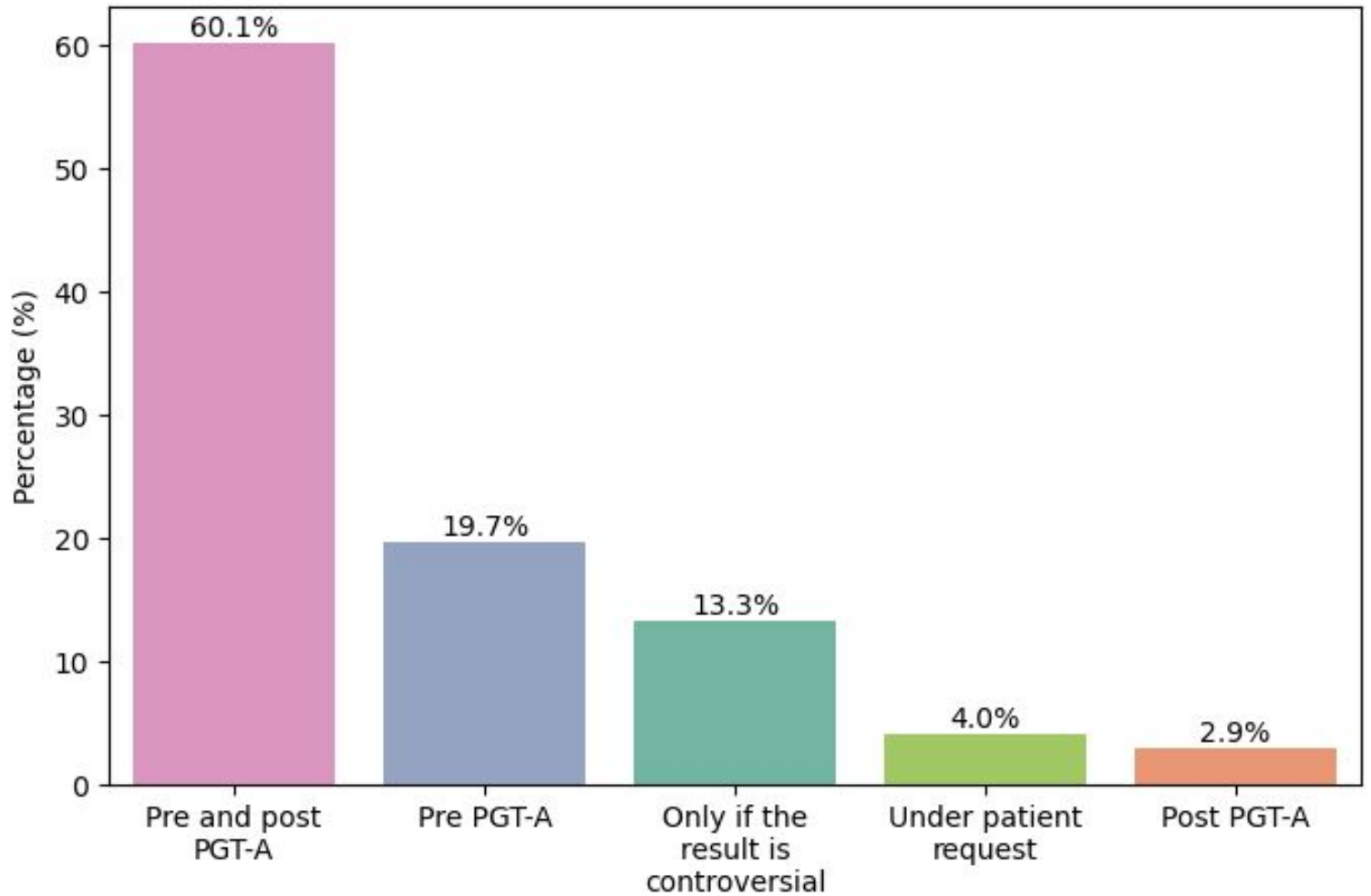
“Opposition to PGT-A was substantially higher among male embryologists when compared to female”

WHY?

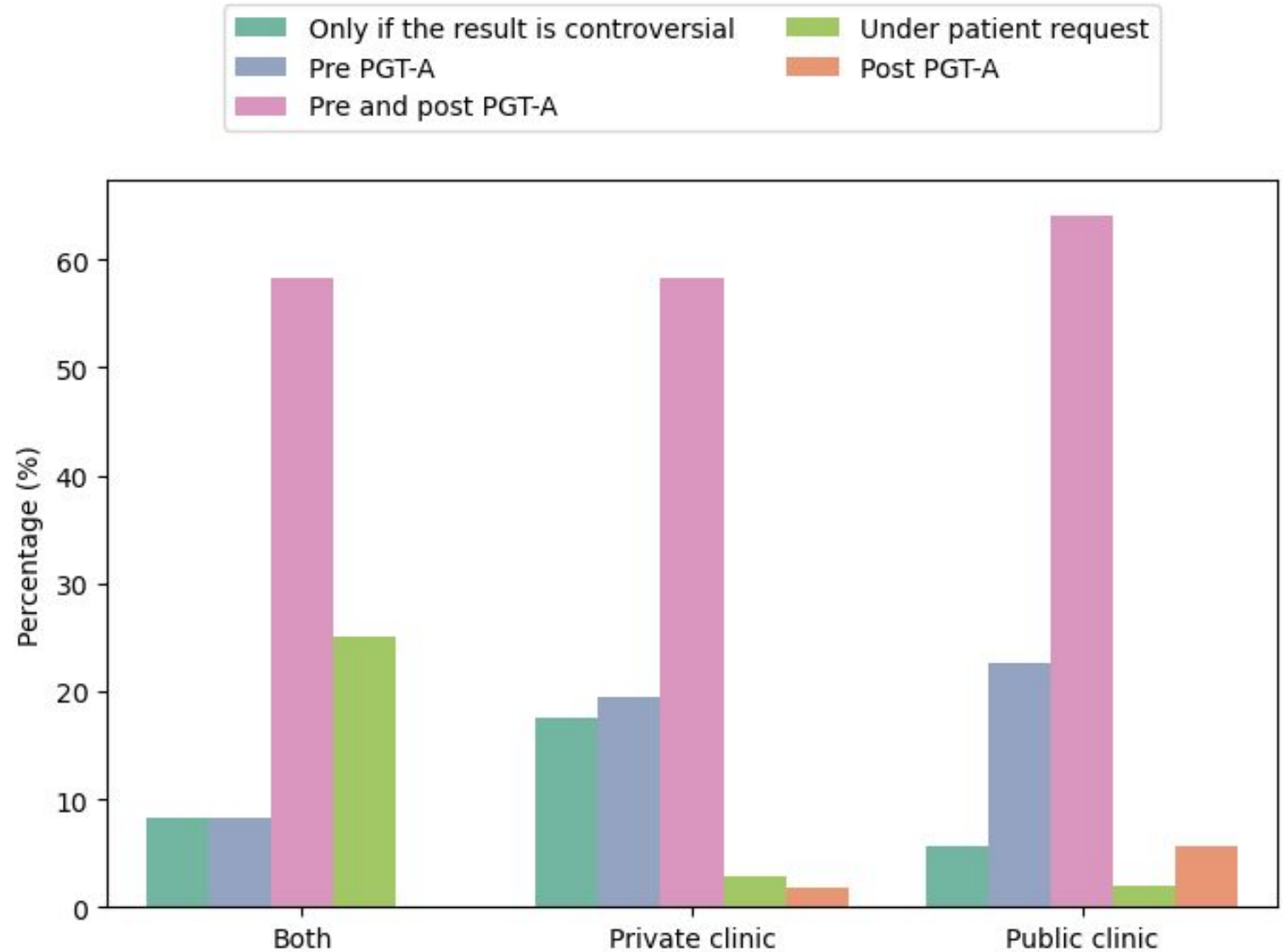
- Empathy for entire patient journey



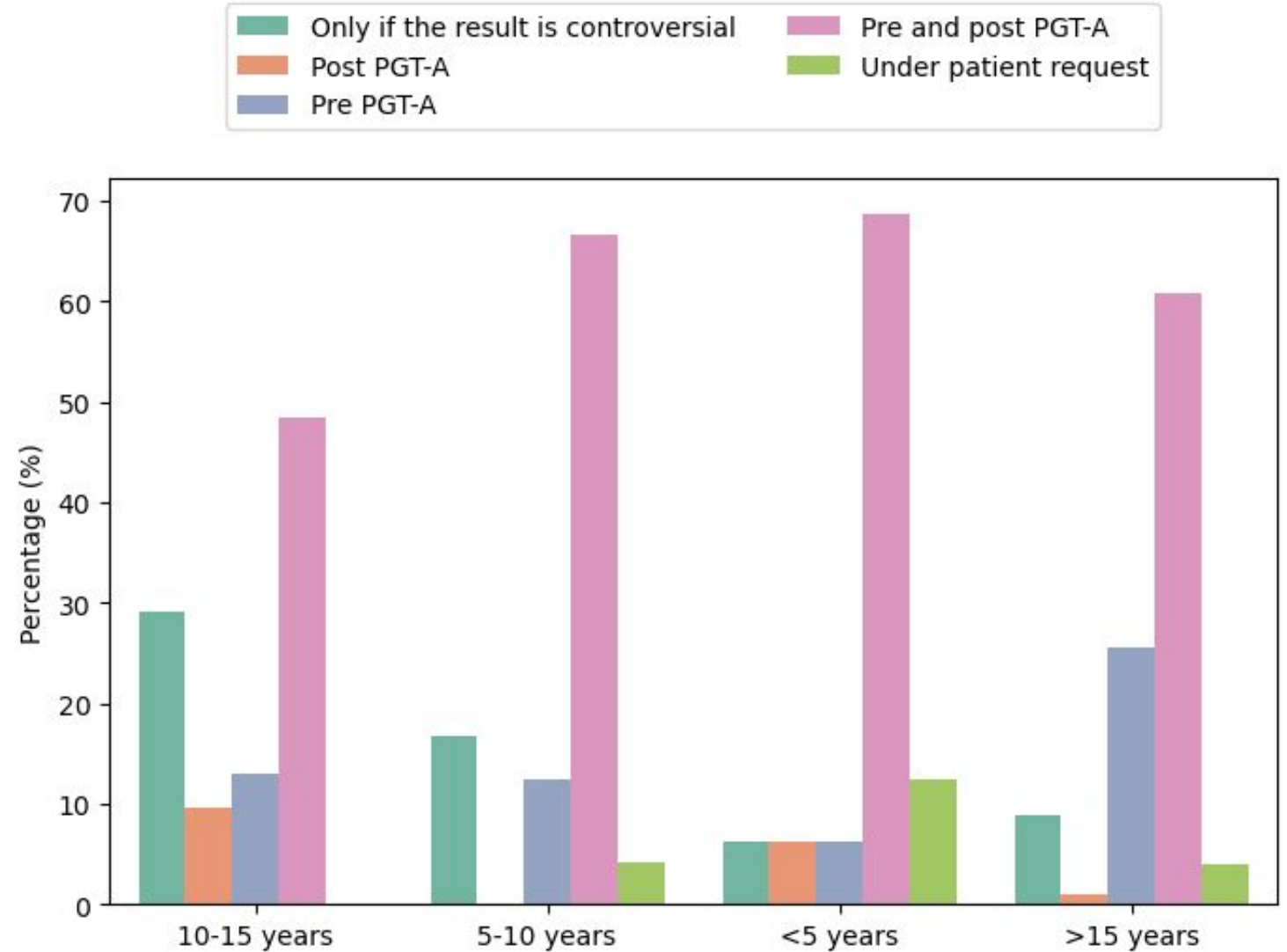
When do you think genetic counselling should be offered to patients undergoing PGT-A?



Answers differ
by Clinic type
($p=0.005$)



Answers differ by experience ($p=0.01$)

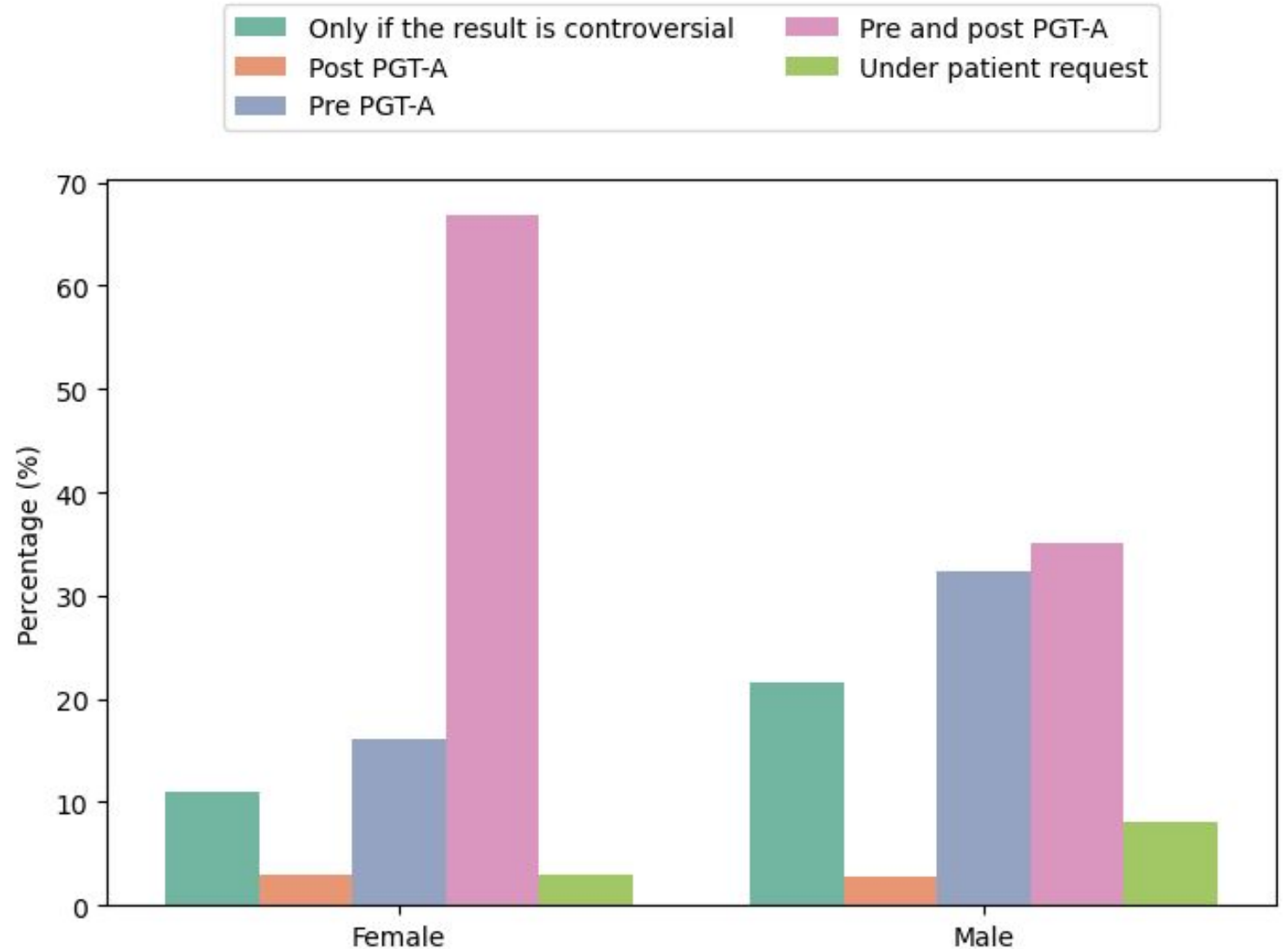


Answers differ by Gender ($p=0.01$)

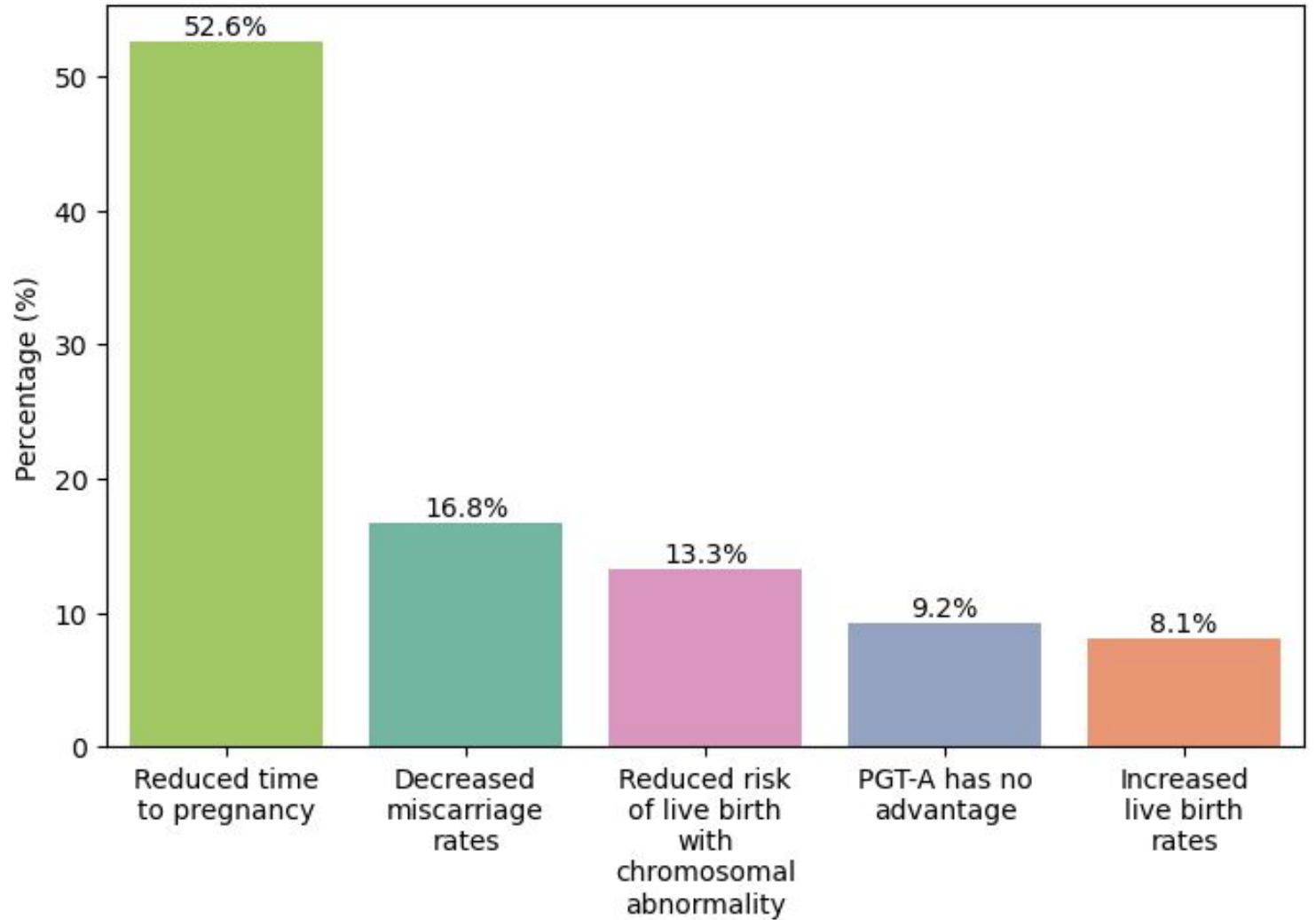
“CONSENSUS!! Provision for genetic counselling should be available to patients undergoing PGT-A both pre- and post-testing”

Discussion point:

- Implications for appropriate provision of resources for PGT-A programmes



What do you see as the primary advantage of PGT-A in IVF practice?



Answers differ by experience ($p=0.014$)

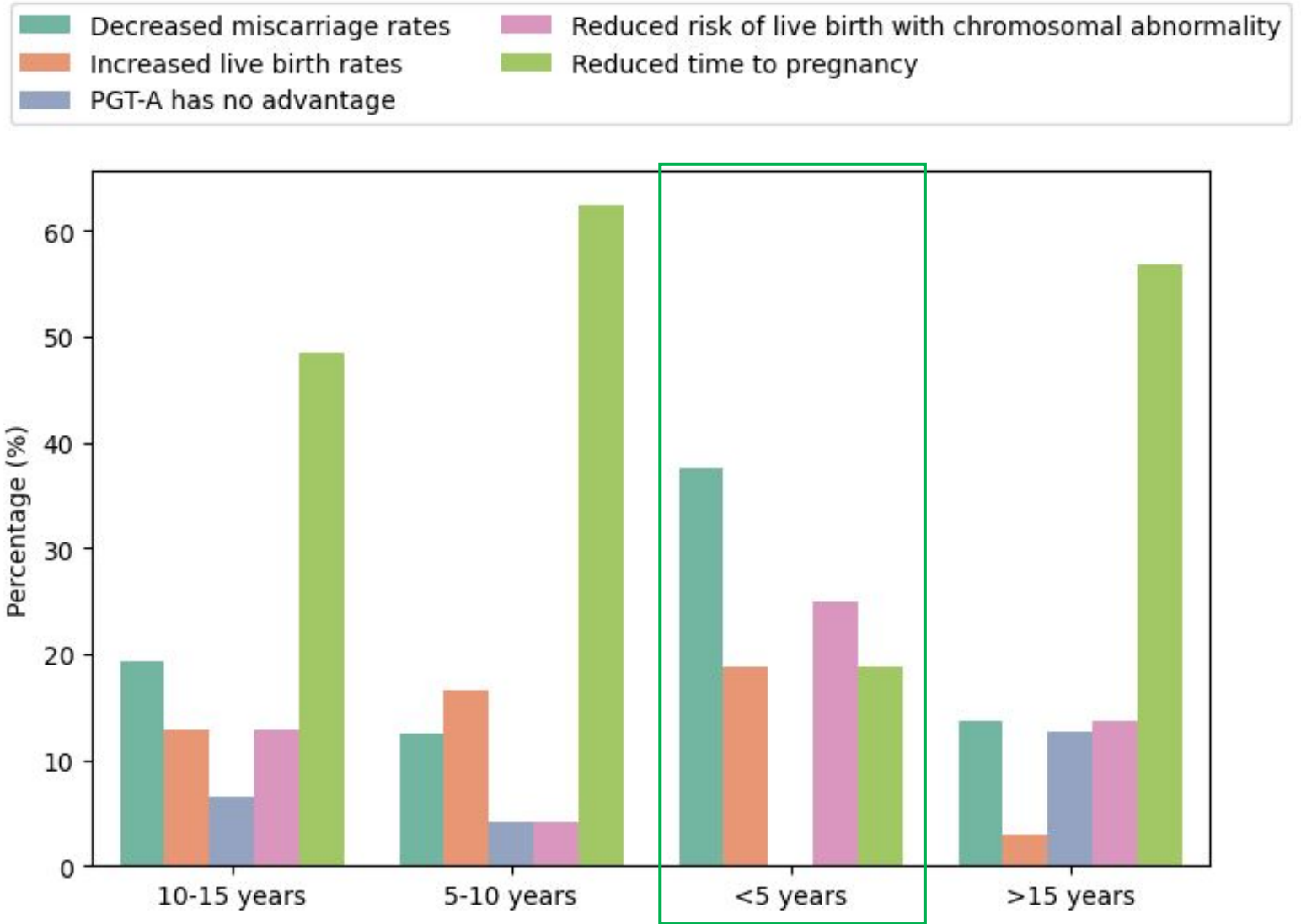
“Interestingly, junior embryologist do not agree with their more senior colleagues”

- Evidence for effectiveness of PGT-A to improve live birth rates and reduce time to pregnancy by selecting chromosomally normal embryos for transfer **is mixed**
- PGT-A has demonstrated ability to reduce miscarriage rates per transfer.

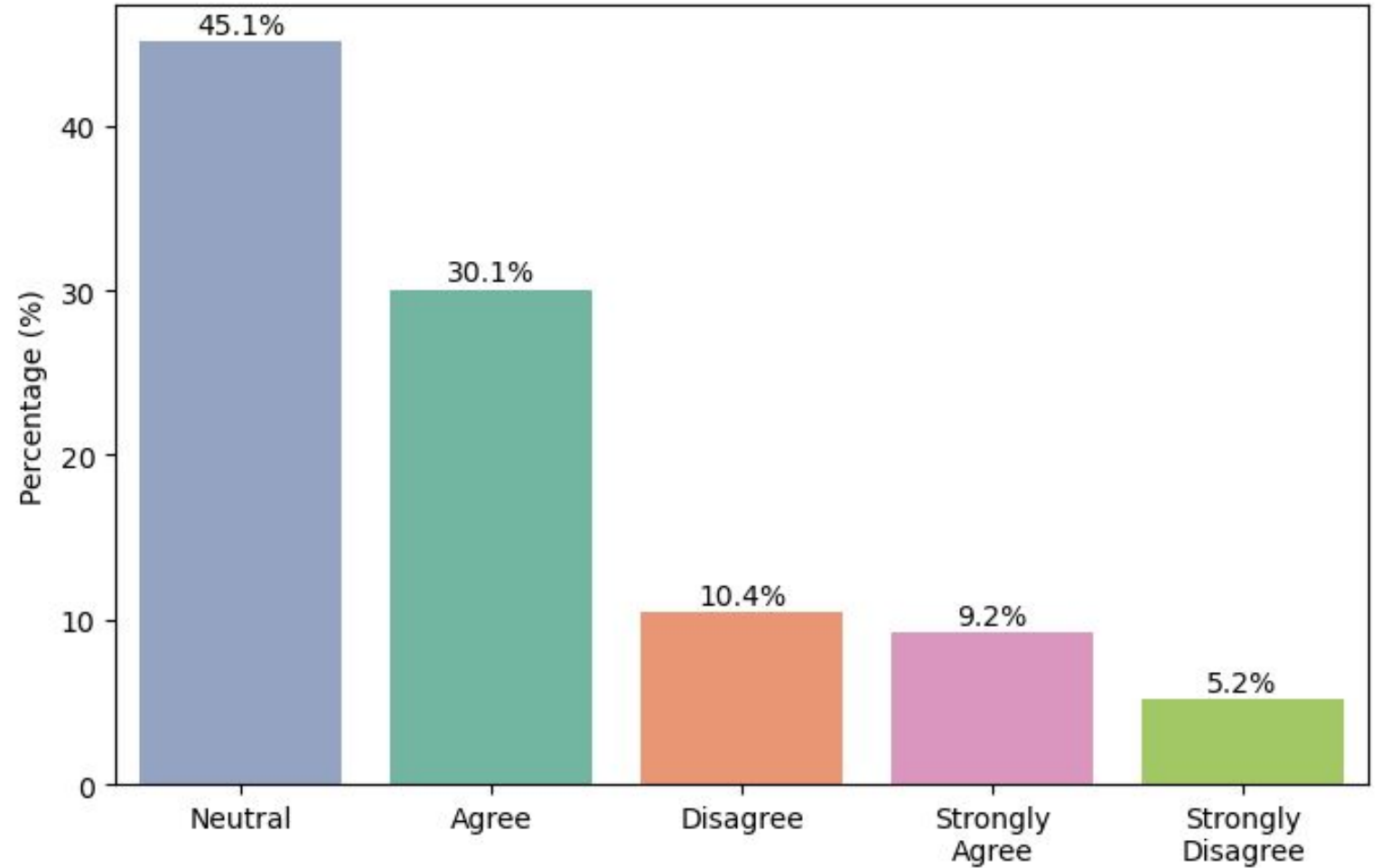
Simopoulou et al 2021, PGT-A: who and when? A systematic review and network meta-analysis of RCTs. J Assist Reprod Genet.

WHY?

- Question of education



In embryos where PGT-A has been performed, do you believe that assessing mosaicism levels (in addition to euploid/aneuploid status) significantly improves embryo implantation success rates and live birth outcomes?



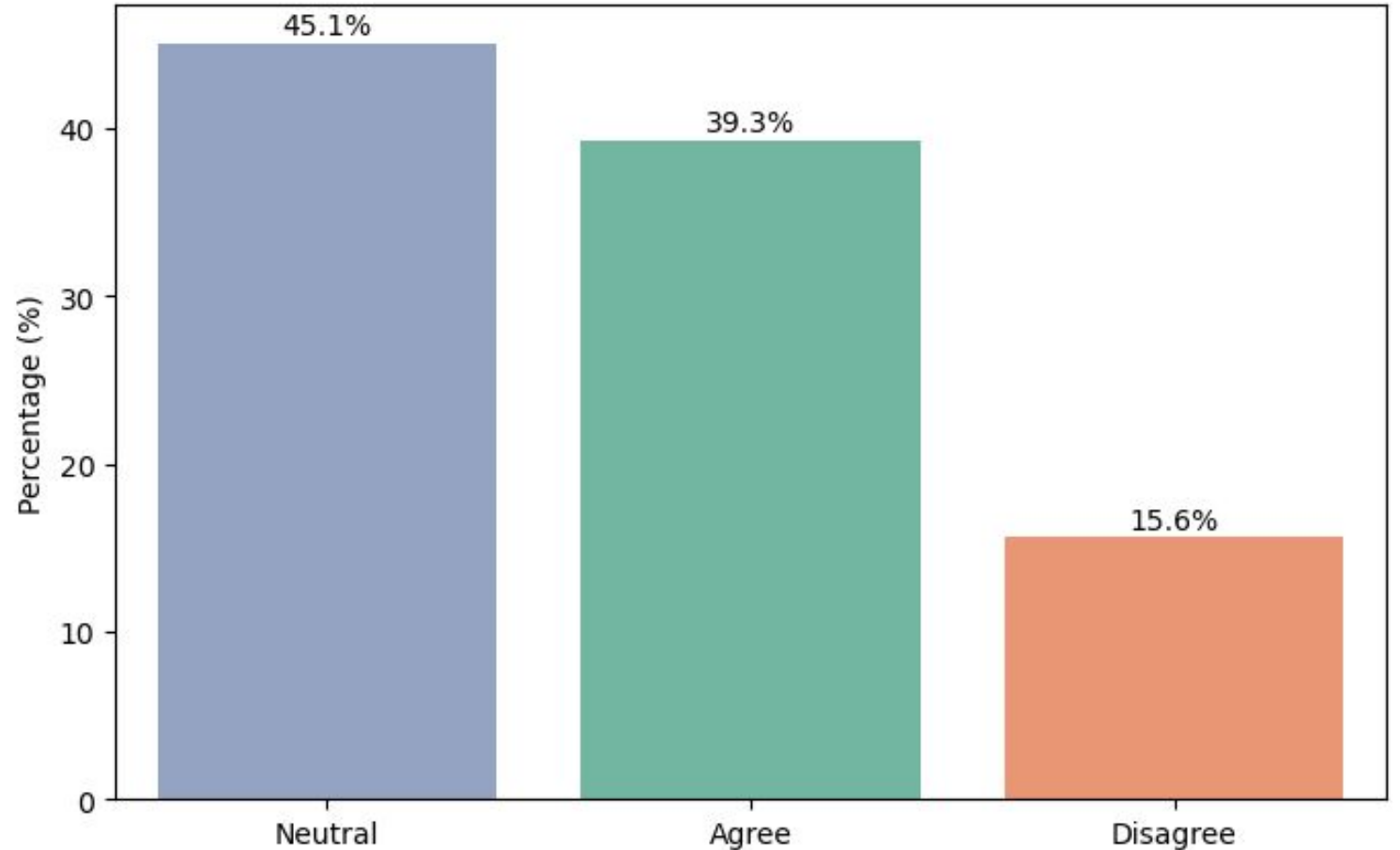
Grouped answers

- The only prospective study investigating putative mosaicism in embryos suggests that it has **no** impact on clinical outcomes

Capalbo et al 2021, Mosaic human preimplantation embryos and their developmental potential in a prospective, non-selection clinical trial. Am J Hum Genet. Dec

Discussion point:

- Need for further clarification on impact of mosaic reporting in PGT



Consensus or Confusion?

- In general, there was largely a cross-demographic consensus among respondents for most questions with certain differences that would be interesting to follow-up and understand.
- Embryologists' views on PGT-A appear to be shaped by factors including gender, experience, and laboratory setting.
- Results demonstrate that further work is required by the field in clarifying
 - The implications of reporting of mosaicism
 - Perhaps the clinical utility of PGT-A

Where Do We Go from Here?

- This work represents a powerful starting point to establish a regional statement on PGT-A practise and a consensus (wherever possible).
- This should encourage further data-sharing and collaborative dialogue (especially between IVF and PGT labs)
- Need to invest in education and evidence-based frameworks for PGT-A research that is accessible to embryologists

Discussion & Questions

- What do you think explains the observed variability in our survey findings?
- Should we aim for standardization or embrace diversity of opinion when it comes to PGT-A?

A massive **Thank You** to all those that
took the time to respond!