

PATIENT CASE

Using MAGENTA™ to Support Patient Counselling in Unexplained Infertility



FutureFertility™

Many clinicians consider IVF as not only a treatment, but also a diagnostic tool to identify issues with gametes, fertilization, & embryo development that may be contributing to patients' fertility issues.

Fertility testing usually assesses major factors like ovulation, tubal patency, the uterine cavity, and sperm production.

While ovarian reserve testing estimates oocyte quantity, there have historically been no reliable clinical tools to assess oocyte quality before IVF.

While "**unexplained infertility**" in a 41-year-old is often presumed to stem from poor oocyte quality, this would not be the expected cause in a 28-year-old.

And yet, we do see poor oocyte quality even in younger patients.

Understandably, these are the individuals who ultimately find their way to fertility clinics.

It is well recognized in literature that the oocyte is the main determinant of embryo quality:

- Studies consistently rank oocyte quality as more influential than sperm characteristics or other variables in determining embryo morphology and pregnancy outcomes.

(Gangrade & Agarwal, 2013)

- Numerous studies consistently show that most embryonic aneuploidies arise from errors during maternal meiosis, with the risk increasing significantly as maternal age advances.

(Fragouli & Wells, 2014), (Chiang et al., 2012)

MAGENTA™
is a valuable
non-invasive
AI-driven
software tool
that offers
insight into
oocyte quality
& its impact
on cycle
outcomes.

Now, let's review
a patient case... ➤

**Magenta™**
by Future Fertility

IVF-ICSI Insights
Image-based AI assessment of egg quality
for IVF-ICSI cycles

Valentina's Personalized Egg Quality Assessment

Patient

Patient ID
Patient Name
Date of Birth
Date of Report

123456
Valentina González
15 Aug 1989
16 Jun 2023

Clinic

Doctor
Clinic
Phone
Email

Maria García Ramírez
Future Fertility Clinic
(123) 456-7890
info@clinic.com

Report

Date of Retrieval
Age at Retrieval
of Mature Oocytes

MAGENTA™ is an image-based AI tool to assess oocyte (egg) quality and provides a personalized assessment of your eggs. Higher values indicate greater chances of developing into a *blastocyst* (day 5-7 embryo) and to be *euploid* (23 pairs of chromosomes).

Oocytes Evaluated
of Mature Eggs Evaluated by MAGENTA™

8 MATURE OOCYTES

Assessed by

MAGENTA™ Oocyte Quality Score
Egg Quality Score (0-10)

Personalized AI assessment of your eggs. Higher MAGENTA™ scores represent higher quality and correlate with an increased chance to become a *blastocyst* embryo.

LOW QUALITY
More confident oocyte will not become a blastocyst

HIGH QUALITY
More confident oocyte will become a blastocyst

OF OOCYTES

MAGENTA™ SCORE

2 OOCYTES

Low

18% of similarly assessed oocytes became a blastocyst*

4 OOCYTES

Low-Medium

38% of similarly assessed oocytes became a blastocyst*

1 OOCYTE

Medium-High

49% of similarly assessed oocytes became a blastocyst*

1 OOCYTE

High

57% of similarly assessed oocytes became a blastocyst*

*The probability of blastocyst development is based on an external dataset of ~12,000 oocyte images previously assessed by MAGENTA™ and the observed blastocyst development rates in this score range. True blastocyst development will depend on clinic blastocyst rates, but as MAGENTA™ scores increase, blastocyst development probabilities also increase.

Euploidy Insights
Predicted # of Euploid Blastocysts

Personalized chances of developing *euploid* blastocysts from your mature eggs.

AT LEAST 1 EUPLOID
91% PROBABILITY

MOST LIKELY OUTCOME
1-2 EUPLOIDS

OVERVIEW OF PREDICTED OUTCOMES

OF EUPLOIDS

PROBABILITY

0
15%

1-2
72%

3-4
9%

5-6
2%

7-8
1%

9-10
0%

Egg 1



3.2/10
MAGENTA™ SCORE

30%
Likelihood of being euploid

Egg 4



2.9/10
MAGENTA™ SCORE

19%
Likelihood of being euploid

Egg 5



3.8/10
MAGENTA™ SCORE

32%
Likelihood of being euploid

Egg 6



7.6/10
MAGENTA™ SCORE

47%
Likelihood of being euploid

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MAGENTA™ AI Assessment

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Patient background:

- 28-year-old woman with 2.5 years of primary infertility
- Ovarian reserve below average, but not diminished
- Mild male factor also identified
- Previously tried 4 IUI cycles with ovarian stimulation, all unsuccessful
- IVF cycle yielded 12 oocytes, 10 of which were mature
- ICSI resulted in 8 oocytes fertilized, but only one blastocyst developed

*Could **low oocyte quality** help explain the results?*

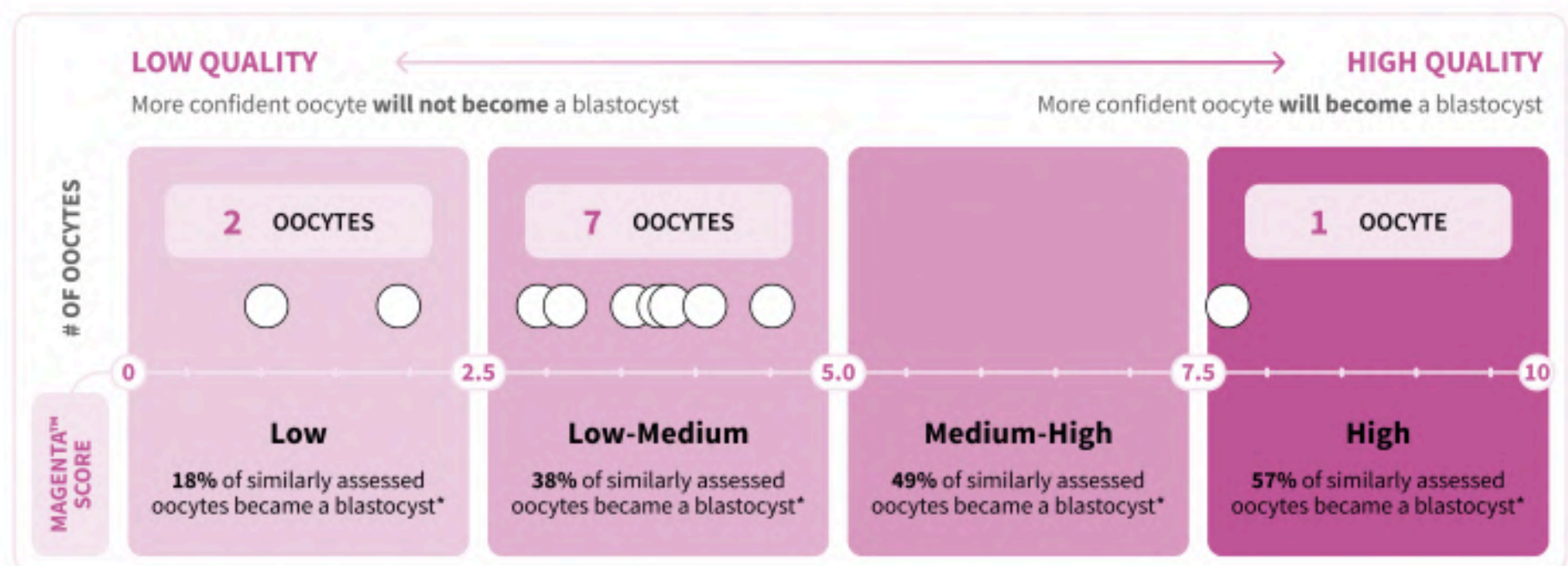


MAGENTA™ provides clear, objective data on oocyte quality to support patient counselling conversations & guide next steps.

MAGENTA™ Oocyte Quality Score

Egg Quality Score (0-10)

Personalized AI assessment of your eggs. Higher MAGENTA™ scores represent higher quality eggs and correlate with an increased chance to become a *blastocyst* embryo.



MAGENTA™ scores indicate that *9/10 mature oocytes have low quality.*

Patient counselling tips:

- Provide patients with a clear understanding that oocyte quality likely played a significant role in the cycle's limited success.
- Provide a data-driven explanation for unexpected results, especially in younger patients, by highlighting a potential root cause of otherwise unexplained infertility
- Guide discussions around future options, such as pursuing another IVF cycle, with or without modifications to treatment based on the overall clinical picture.