New insights to fertility treatment with RRM

Knock, Ireland

4th Oct 2025

Dr. Phil Boyle
MRCGP, MICGP

Conflicts of Interest

- President

- Co-owner and developer of

neo fertility.ie & chart neo .com Fertility App

What is RRM?

RRM (Restorative Reproductive Medicine)

Any medical and /or surgical treatments that treat infertility, usually combined with fertility charting. www.iirrm.org

Develop a new medical specialty – challenge current norms with scientific medical perspectives, rather than moral arguments

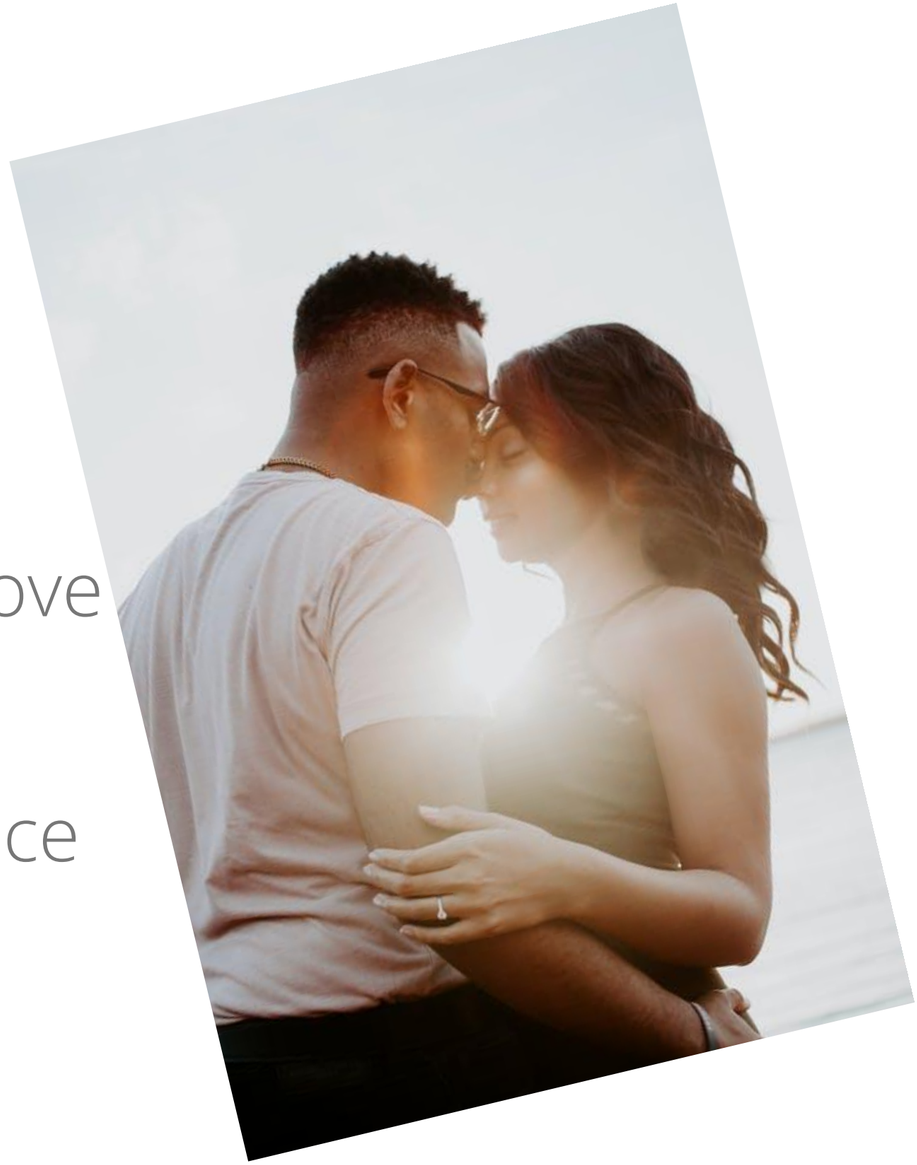
What is RRM?

Continue for 12 balanced cycles

with love

&

science



What is IVF?

A scientific process

Outside of loving embrace

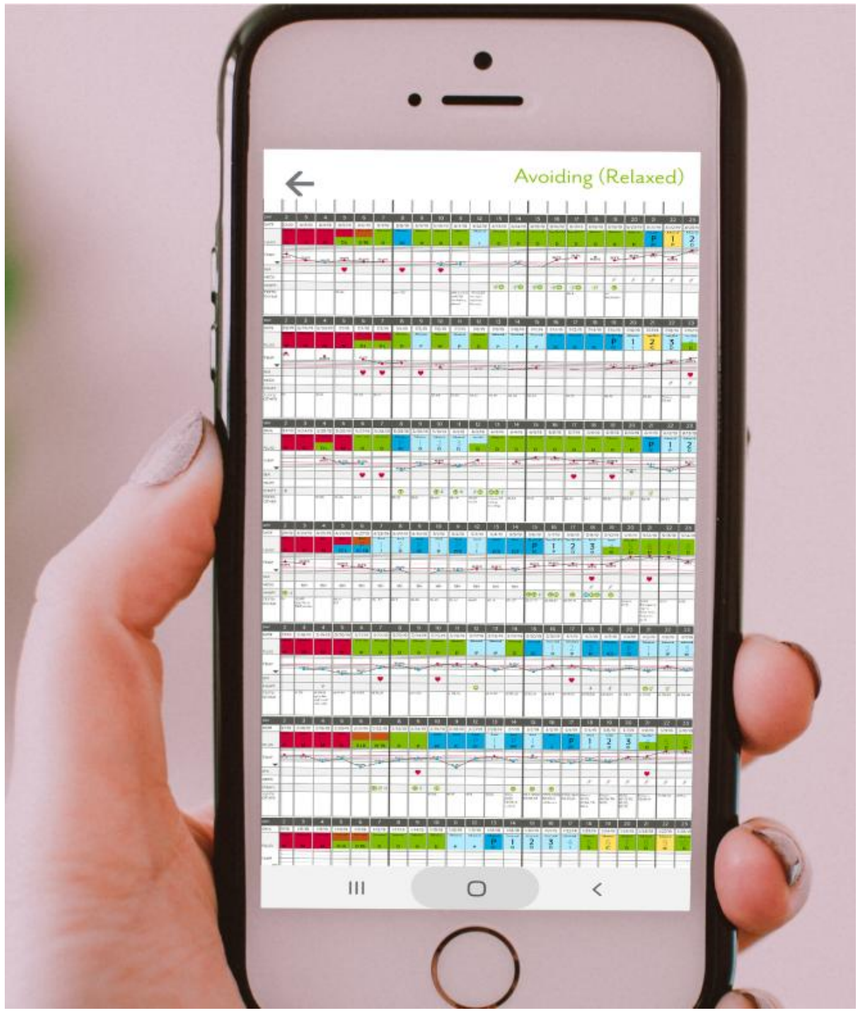
chart neo App 2018

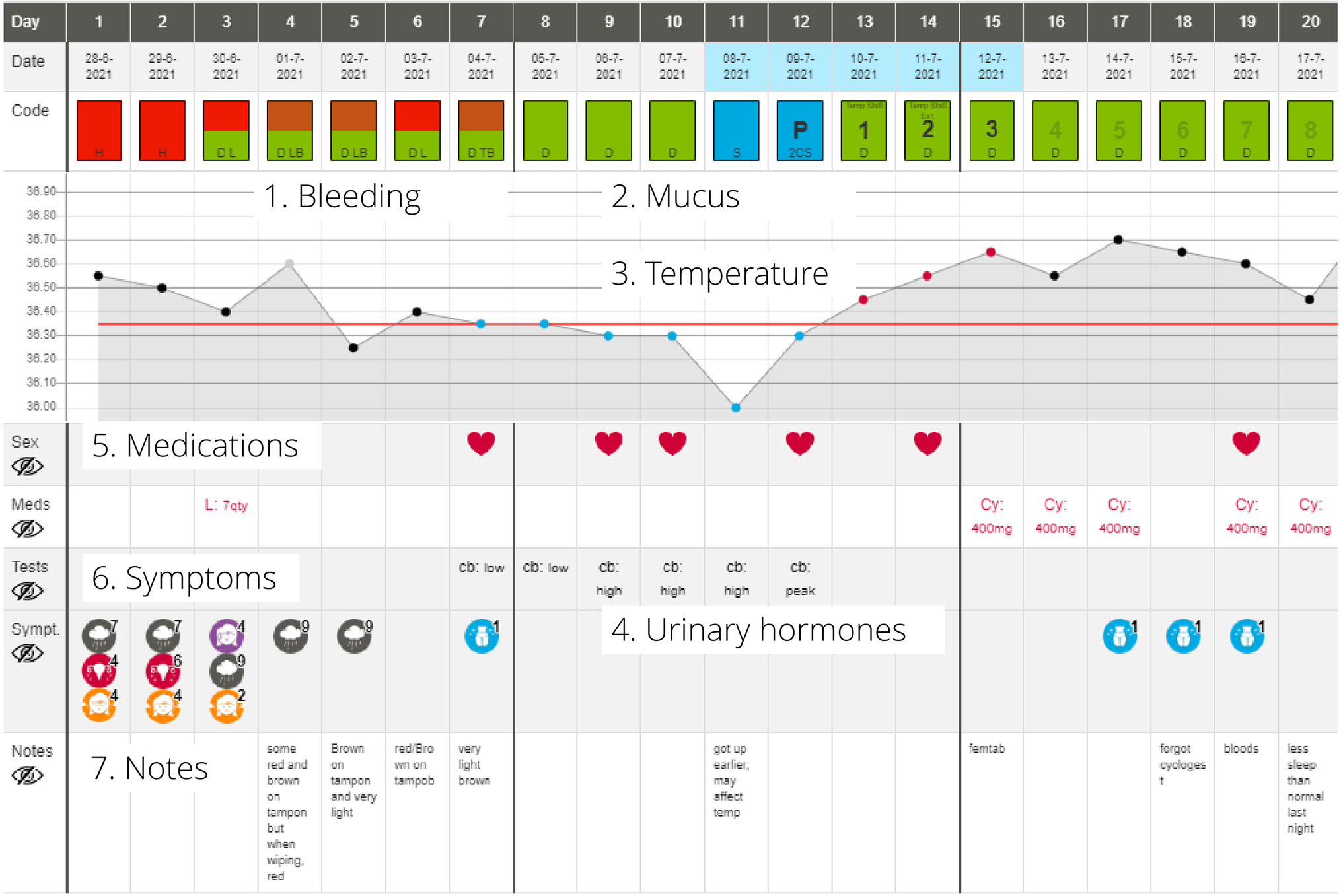
Multiple-Index Method

- Ovulation Method
- Sympto-Thermal Method
- Sympto-hormonal method

Flexible and versatile

Use as many indicators as you choose




Day 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Date 28-6-2021 29-6-2021 30-6-2021 01-7-2021 02-7-2021 03-7-2021 04-7-2021 05-7-2021 06-7-2021 07-7-2021 08-7-2021 09-7-2021 10-7-2021 11-7-2021 12-7-2021 13-7-2021 14-7-2021 15-7-2021 16-7-2021 17-7-2021
Code H H D L D LB D LB D L D TB D D D S P 2CS 1 D 2 D 3 D 4 D 5 D 6 D 7 D 8 D
1. Bleeding
2. Mucus
3. Temperature
36.90 36.80 36.70 36.60 36.50 36.40 36.30 36.20 36.10 36.00
5. Medications
Sex
Meds
L: 7qty
Cy: 400mg
6. Symptoms
Tests
cb: low
cb: low
cb: high
cb: high
cb: high
cb: peak
4. Urinary hormones
Sympt.
Notes
7. Notes
some red and brown on tampon but when wiping, red
Brown on tampon and very light
red/Brown on tampob
very light brown
got up earlier, may affect temp
femtab
forgot cycloges t
bloods
less sleep than normal last night

NeoFertility Team

Fertility Doctors

Couple

Fertility Reception

Fertility Advisor

OPTIMAL OVULATION
&
OPTIMAL CYCLES
NEW CONCEPTS

Dr. Phil Boyle, MRCGP, MICGP, MCRN 011986

neo fertility

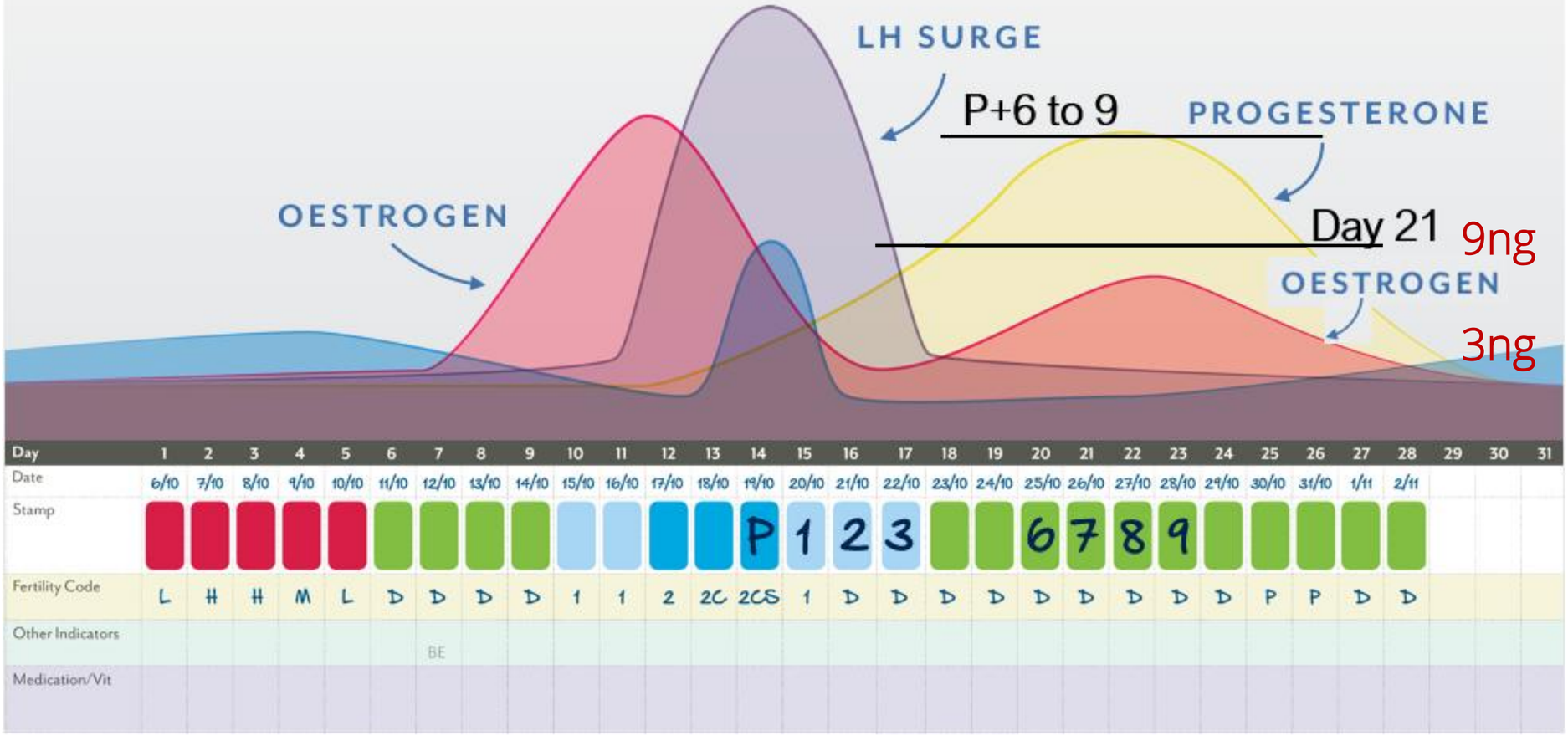
Fertility evaluation of infertile women: a committee opinion. ASRM 2021

1. **Serum progesterone measurement should generally be obtained approximately 1 week before the expected onset of the next menses, rather than day 21**
2. **a single progesterone value may be used to confirm ovulation**

https://www.asrm.org/practice-guidance/practice-committee-documents/fertility-evaluation-of-infertile-women-a-committee-opinion-2021/

Peak +7 Blood Test (New Concept!)

Blood test for oestradiol & progesterone every month on Peak +7 (or 6,8,9) to assess quality of ovulation



<u>P+7 bloods</u>

<u>Progesterone</u>

>60nmol/l

(>19ng/ml)

<u>Oestradiol</u>

>400pmol/l

(>109pg/ml)

neo fertility

Fertility evaluation of infertile women: a committee opinion. ASRM 2021

A progesterone concentration >3 ng/mL provides presumptive and sufficient evidence of recent ovulation

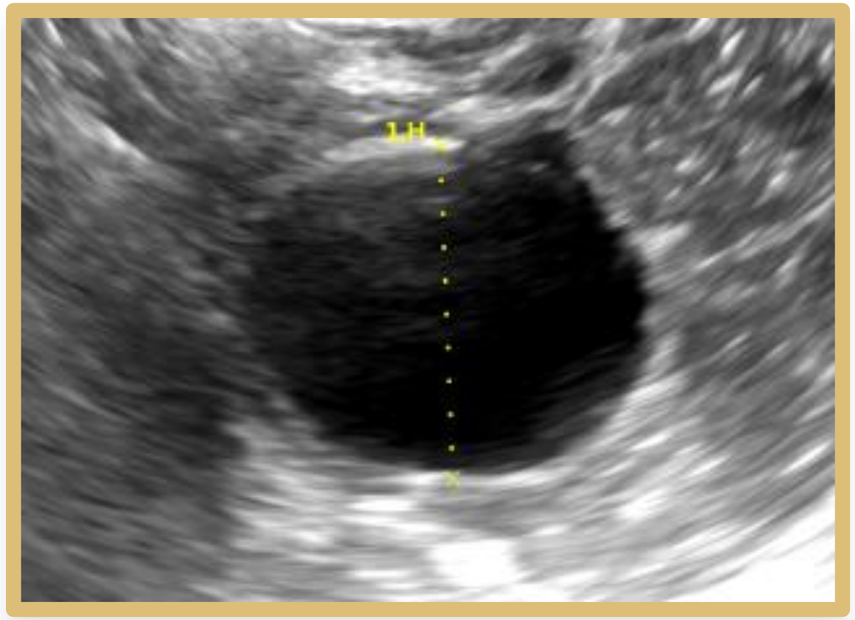
But the authors say …….

"We accept that these definitions are arbitrary and scientifically unsatisfactory"

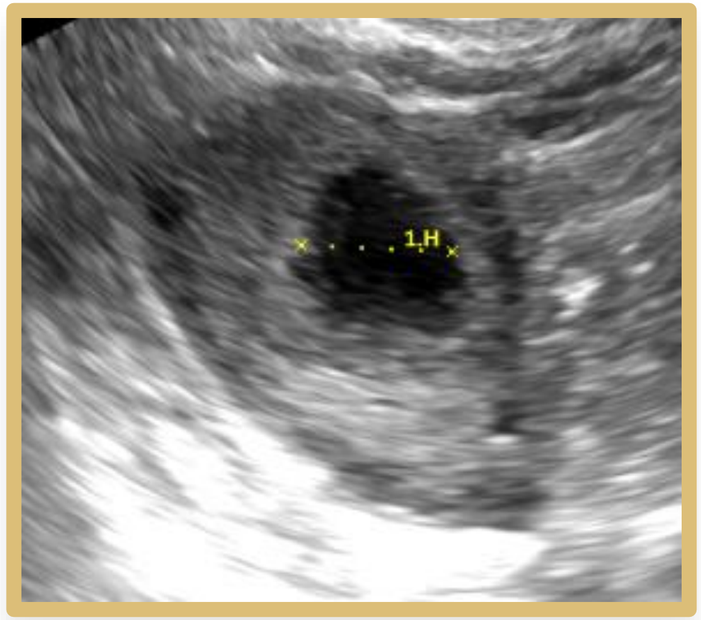
Wathen NC, Perry L, Lilford RJ, Chard T. Interpretation of single progesterone measurement in diagnosis of anovulation and defective luteal phase: observations on analysis of the normal range. Br Med J (Clin Res Ed) 1984;288:7–9

Ultrasound image

MATURE FOLLICLE



COMPLETE RUPTURE



Average diameter must decrease by 5mm or more for complete rupture

Contrast with current Fertility Clinics

1. Progesterone/Oestradiol deficiency mostly UNDETECTED
2. IF it is severe and detected – Inadequate treatment

Table 4

Diagnosis	CDC	Pre RRM	Post RRM
Unexplained	11%	24%	1%
Recurrent miscarriage	6%	17%	11%
Ovulatory dysfunction	14%	19%	76%
Polycystic ovarian syndrome	Not reported	12%	12%
Corpus luteum deficiency	Not reported	0%	71%
Diminished ovarian reserve	29%	20%	20%
Follicle stimulating hormone >10 mIU/ml	Not reported	4%	4%
Male factor	27%	16%	20%
Elevated sperm DNA fragmentation	Not reported	0%	10%
Endometriosis	7%	10%	25%
Tubal factor	10%		
Hydrosalpinx	Not reported	1%	0%
Blocked tubes	Not reported	3%	2%
Pelvic inflammatory disease	Not reported	2%	3%
Hypothyroidism	Not reported	7%	24%
Hyperprolactinemia	Not reported	4%	1%
Insulin resistance	Not reported	2%	16%
Hypoandrogenism	Not reported	0%	31%
Endometritis (including brown post menstrual spotting)	Not reported	0%	17%
Symptoms of clinical endorphin deficiency	Not reported	1%	67%
Immune (natural killer cell, LAD)	Not reported	2%	9%

x5

x3

Multifactorial Diagnoses

Treatment of low progesterone

	RRM	Non RRM
Confirmed mid luteal phase	✓	X
Oestradiol tested	✓	X
Mucus assessed	✓	X
Length of Luteal phase confirmed	✓	X
Optimal Prog/Oest confirmed	✓	X
Follicle rupture confirmed	✓	X
Continued for 12 good cycles	✓	X

Optimal Cycle

1. Semen analysis +/- DNA Fragmentation test
2. Treat Chronic Endometritis
3. Immune dysfunction
4. Laparoscopy
5. Hysteroscopy
6. Emotional Support

Optimal Cycle

1. Relaxed enjoyable intercourse
2. Alternate days during best mucus
3. Managed expectations – 12 cycles

CASE REPORT (12642)

35YRS

2 MISC

18 OVULATION INDUCTION

1 IVF

Dr. Phil Boyle, MRCGP, MICGP

neo fertility

Case - 35yrs, 2 misc, 18 Ov Ind, 1 IVF

First visit

Case - 35yrs, 2 misc, 18 Ov Ind, 1 IVF

- 1st appointment – Jan 2022
- Age 35 +7
  TTC – Sept 2019 – 2.5 years
  DX PCOS – Long cycles, 38 days (range 12-90 days)

- Rx – 18 cycles Ovulation Induction
  (8 x Clomiphene, 3 x Letrozole, 7 x FSH (Gonal F),
  9 cycles with metformin 500mg twice daily

- 1 IVF – Hyperstimulated, 17 eggs,
  2 Frozen Embryos transferred

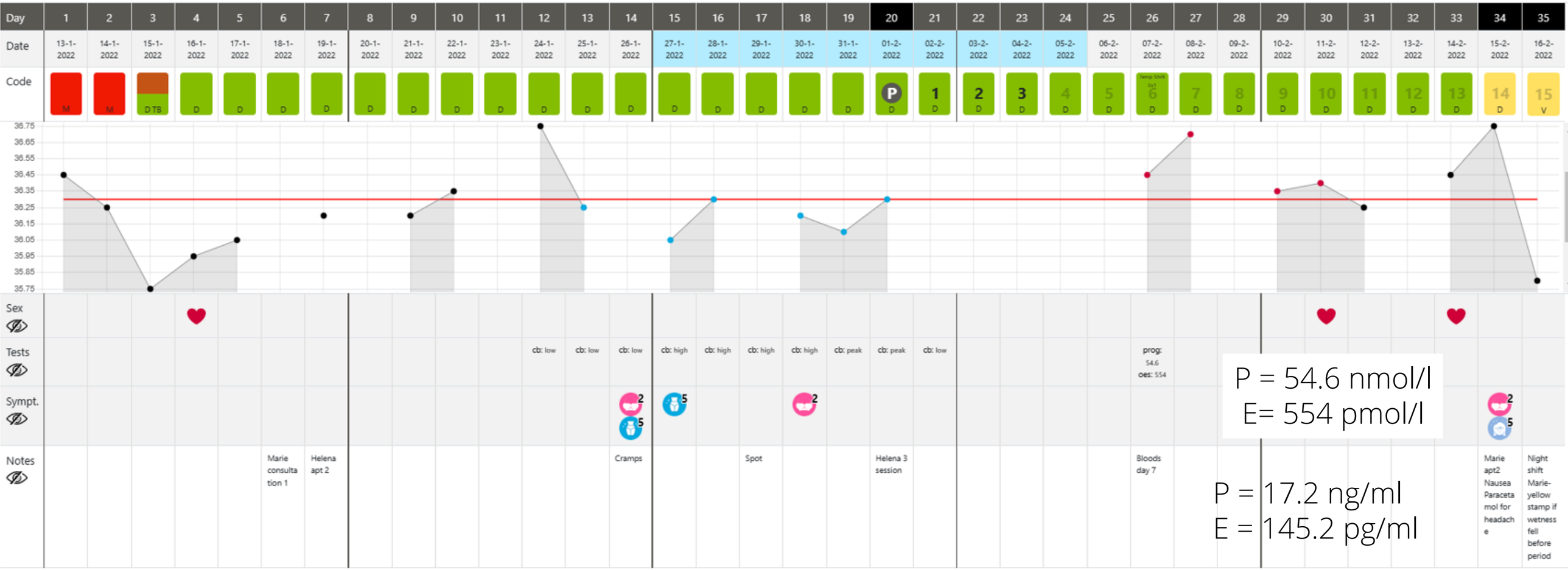
neo fertility

Multifactorial Treatment

- Diet
- Food Intolerance
- Vitamin Deficiency
- ~~Endorphin Deficiency~~
- ~~Low DHEA~~
- ~~Reduced Sympathetic Tone~~
- ~~Thyroid dysfunction~~
- ~~Male treatment~~
- Follicle stimulation
- Mid cycle HCG
- Luteal phase rx
- Insulin Resistance
- ~~Antibiotics~~
- NK Cells
- Clotting abnormality
- ~~Laparoscopy~~
- ~~Hysteroscopy~~
- Immune dysfunction

Case - 35yrs, 2 misc, 18 Ov Ind, 1 IVF

Chart 1

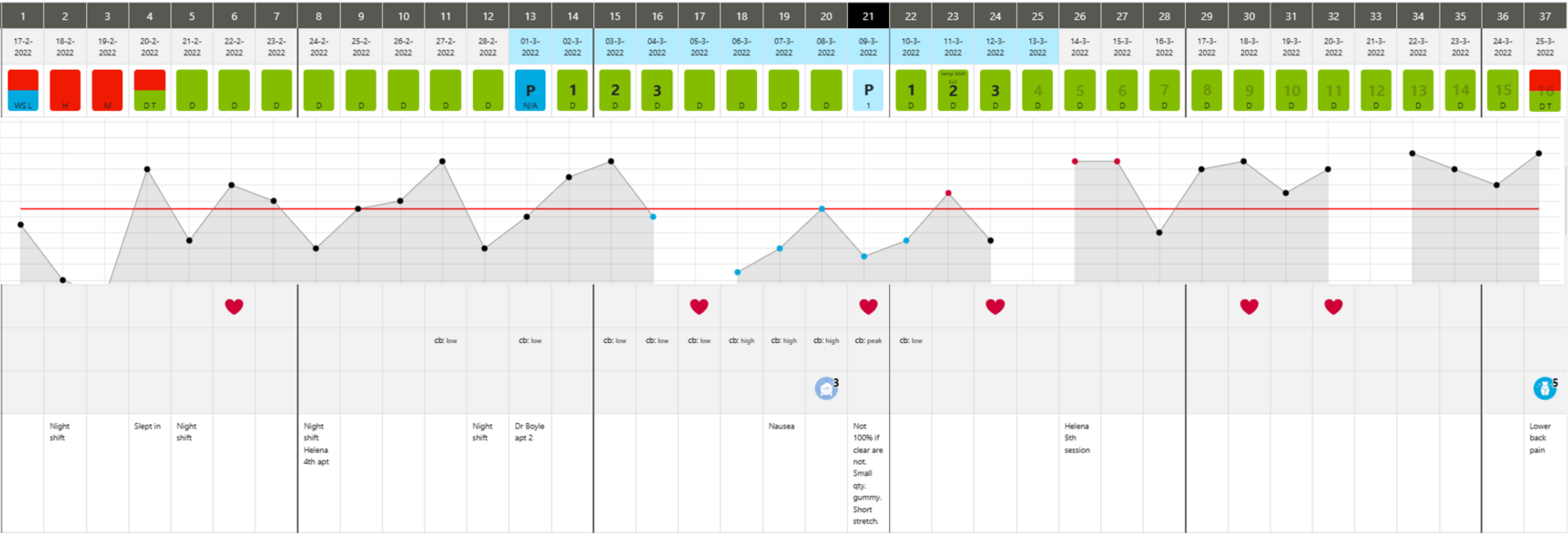


P = 54.6 nmol/l
E= 554 pmol/l

P = 17.2 ng/ml
E = 145.2 pg/ml

Case - 35yrs, 2 misc, 18 Ov Ind, 1 IVF

Chart 2



Case - 35yrs, 2 misc, 18 Ov Ind, 1 IVF

8	Letrozole 2.5 mg	7 tablets od x 2 days, start day 3	
9	Prednisolone (Deltacortril EC tab) 5 mg mane	once daily x 30 days	
10	Cyclogest 400mg PR/PV	x 10 nights, start peak + 3 of cycle	
11	Monthly Blood Test P 7	Progesterone and Oestradiol	P + 6 to 9
12	Follicle tracking day 14 and 19	one cycle	

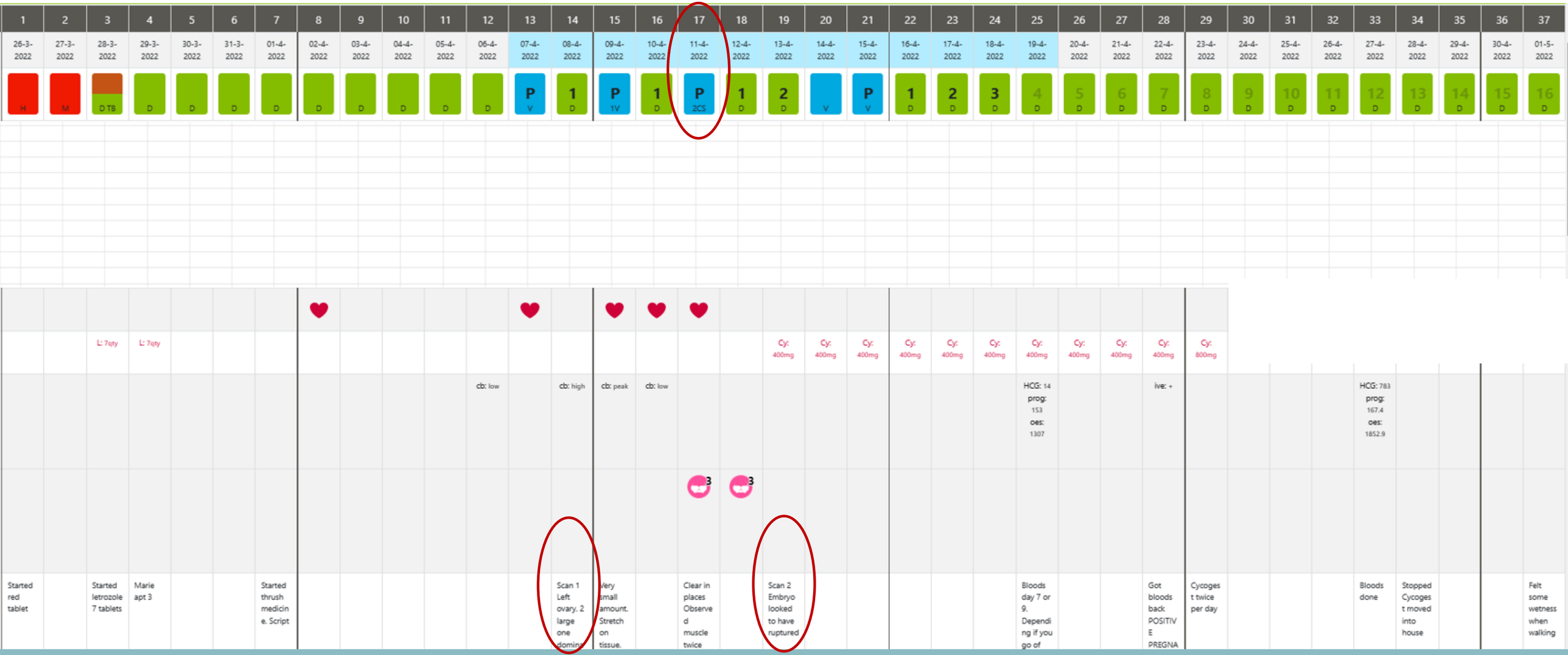
Case - 35yrs, 2 misc, 18 Ov Ind, 1 IVF

Phase 3

Allow to conceive

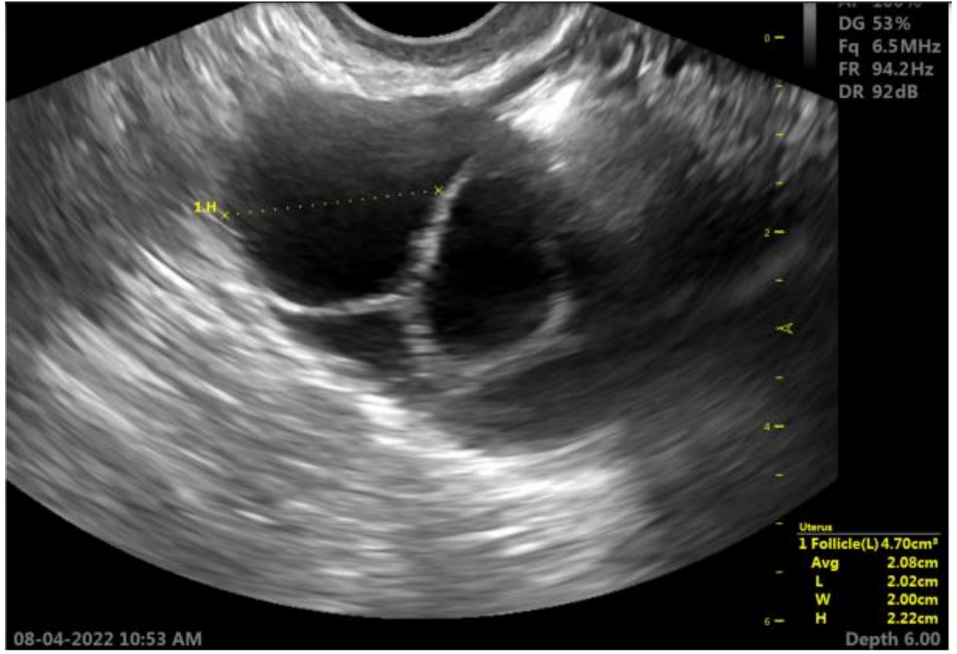
Case - 35yrs, 2 misc, 18 Ov Ind, 1 IVF

Chart 3

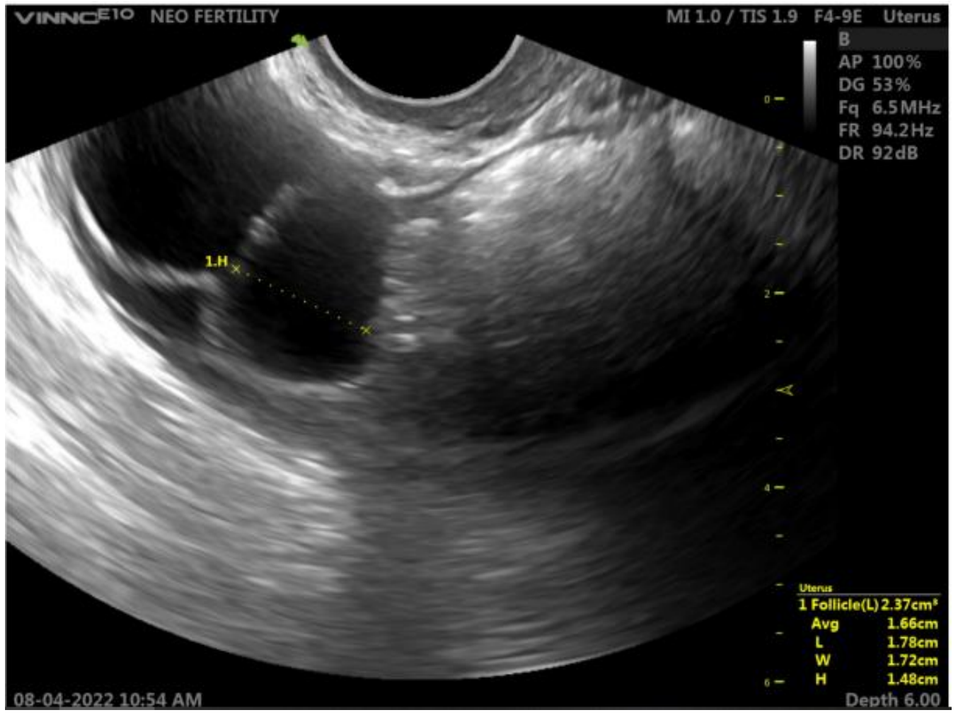


Day 14

2.0cm

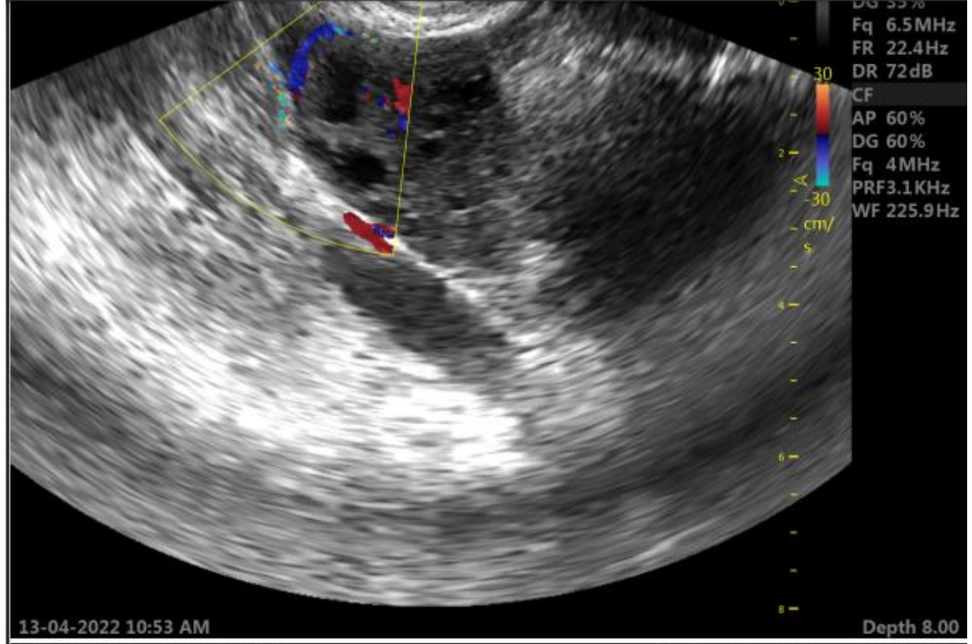


1.6cm

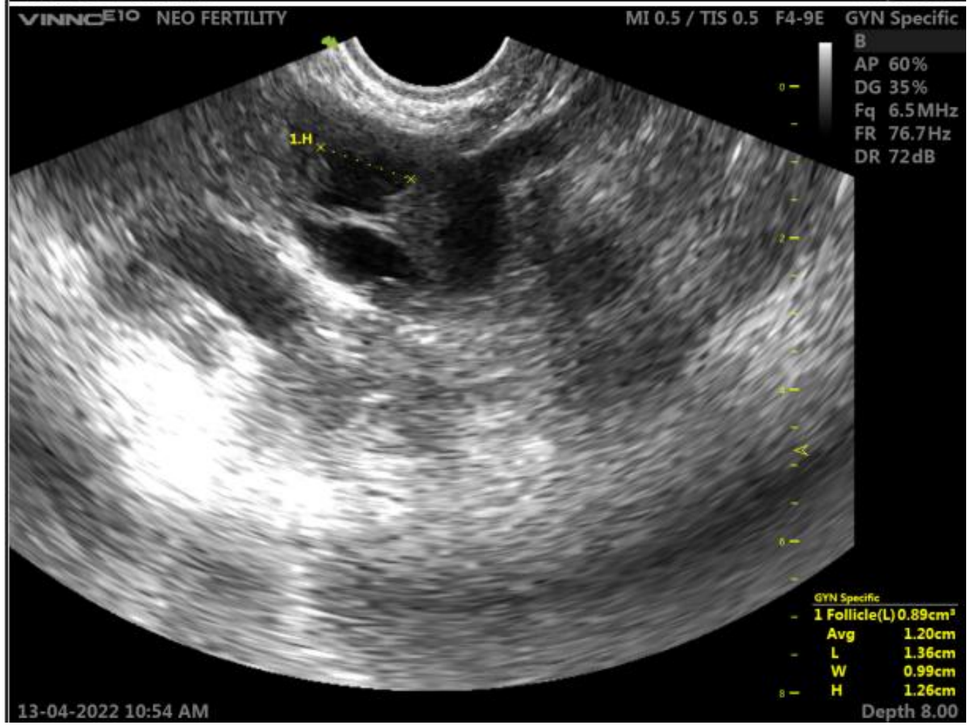


Day 19

1.2cm



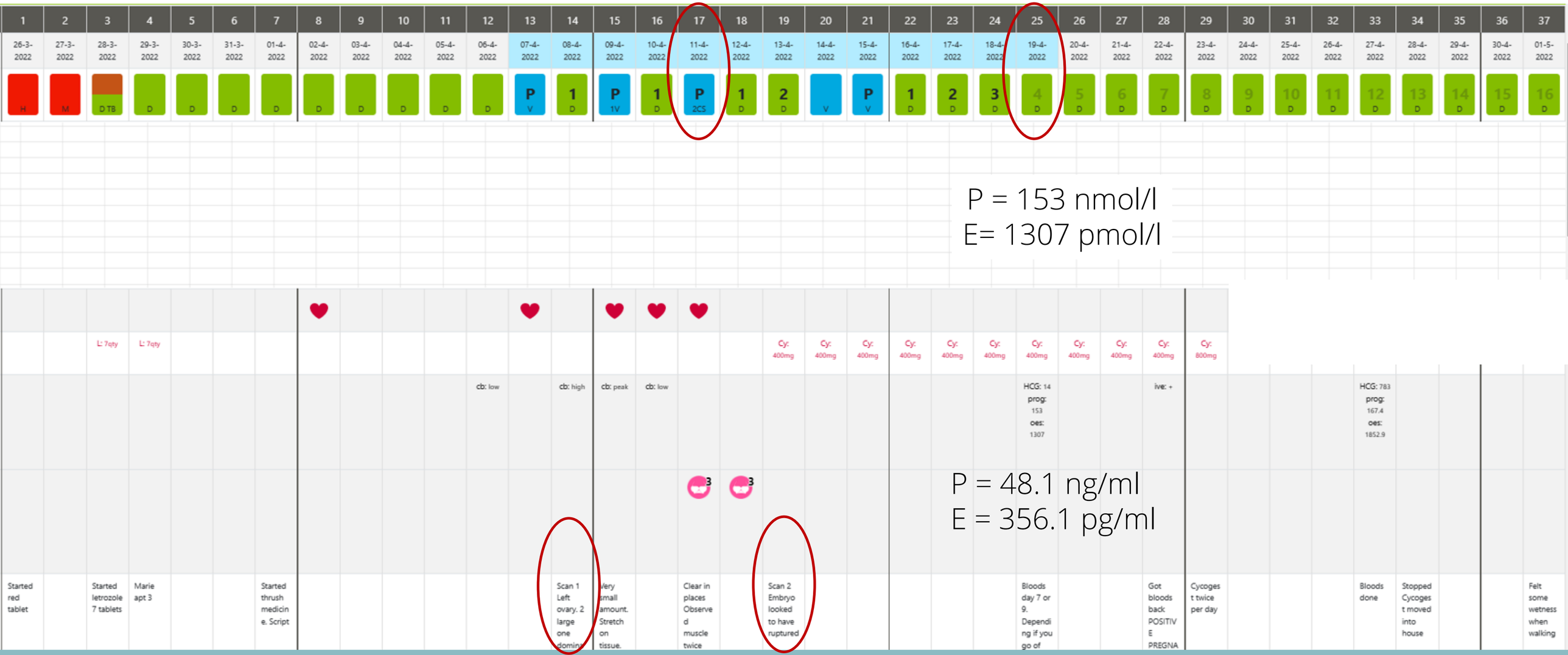
2nd FR?



neo fertility

Case - 35yrs, 2 misc, 18 Ov Ind, 1 IVF

Chart 3

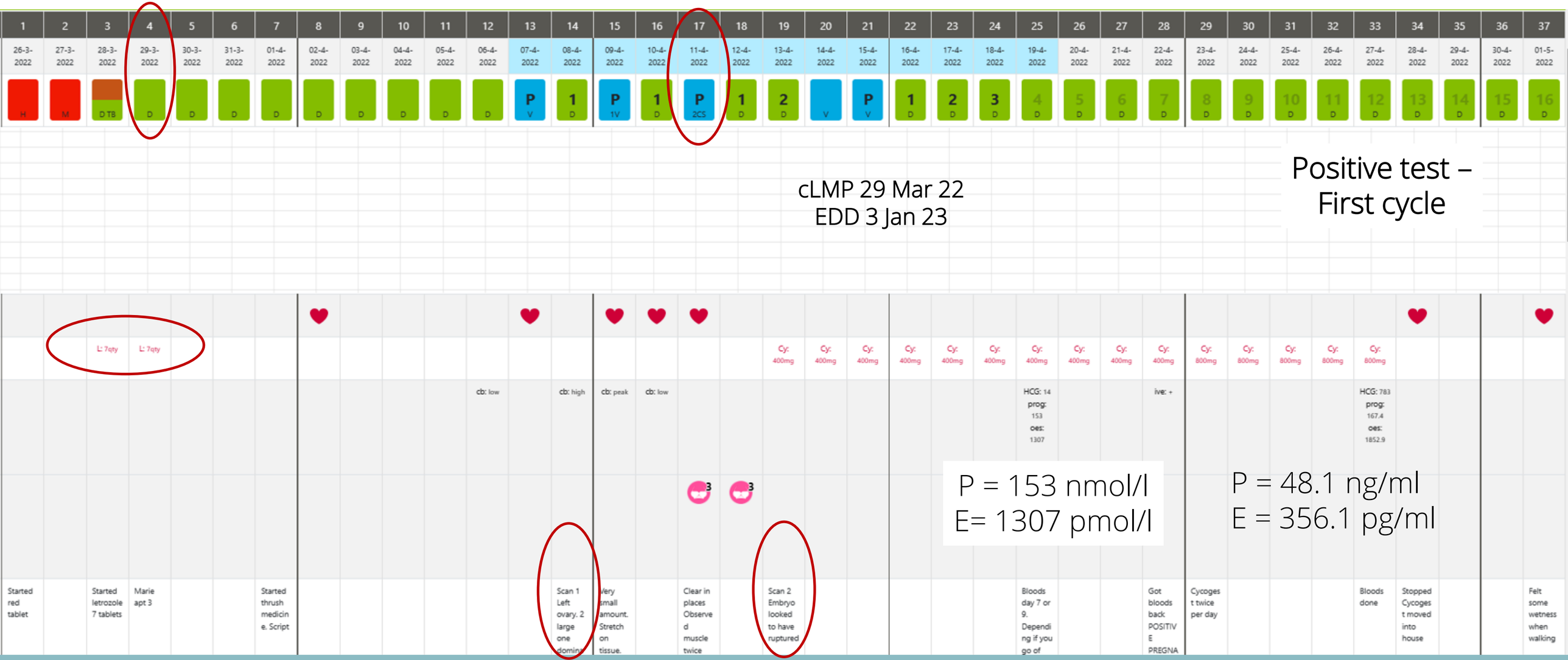


P = 153 nmol/l
E= 1307 pmol/l

P = 48.1 ng/ml
E = 356.1 pg/ml

Case - 35yrs, 2 misc, 18 Ov Ind, 1 IVF

Chart 3



cLMP 29 Mar 22
EDD 3 Jan 23

Positive test –
First cycle

P = 153 nmol/l
E= 1307 pmol/l

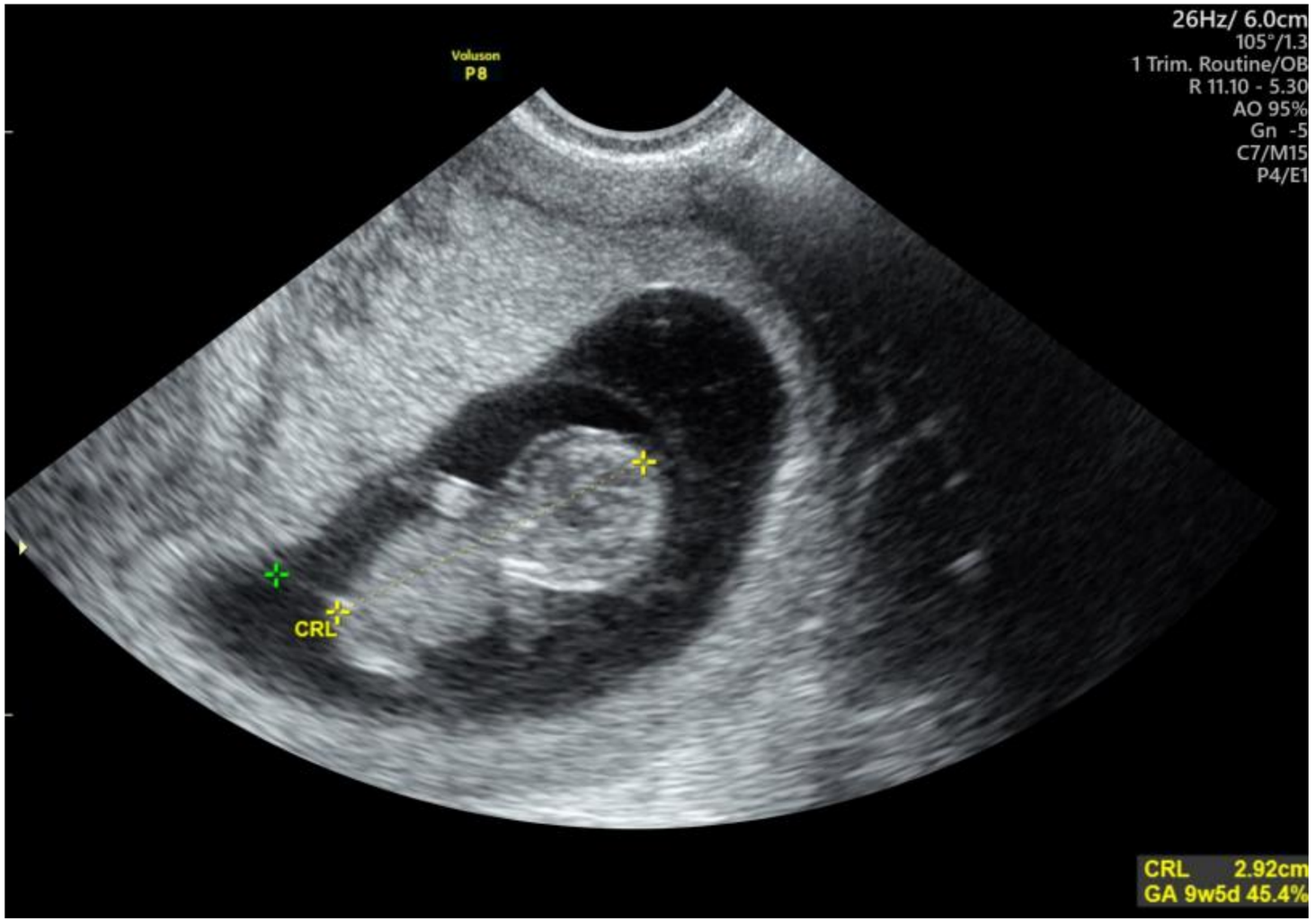
P = 48.1 ng/ml
E = 356.1 pg/ml

Case - 35yrs, 2 misc, 18 Ov Ind, 1 IVF

Date	Current Rx	Blood date	Gestation	Prog nmo	Prog ng/n	Oestradiol	Change of Rx	Comments
22-04-2022	**Positive Test**		3w4d (P+11)					
28-04-2022		27-04-2022	4w2d	167.4	52.64	1852.9	stop Cyclo BT 1 week	HCG 783
05-05-2022		04-05-2022	5w2d	167.6	52.70	2754.4	Stop cyc, bt 1 wk, scan 2 wks	HCG 18,216
12-05-2022		11-05-2022	6w2d	114.7	36.07	2978.0	continue no cyc	HCG 95,686

90% confident of good scan - Twins?

Case - 35yrs, 2 misc, 18 Ov Ind, 1 IVF



Case - 35yrs, 2 misc, 18 Ov Ind, 1 IVF

- Male
- Born 1Jan 23
- Vacuum delivery

- Full term, healthy
- 7lb 5oz (3316g)

Case - 35yrs, 2 misc, 18 Ov Ind, 1 IVF

- Repeat treatment

- Male
- Born 16 May 2024

- 5lb 7 oz - induced

PUBLISHED CASE REPORTS

1. 16 YEARS INFERTILITY
2. 5 PREGNANCY LOSSES

neo fertility

Infertility – 16 years, 3 misc, 8 Embryo T/F

Boyle *et al. Journal of Medical Case Reports* (2022) 16:246
https://doi.org/10.1186/s13256-022-03465-w

Journal of
Medical Case Reports

CASE REPORT **Open Access**

Successful pregnancy with restorative reproductive medicine after 16 years of infertility, three recurrent miscarriages, and eight unsuccessful embryo transfers with *in vitro* fertilization/intracytoplasmic sperm injection: a case report

Phil C. Boyle[1*], Joseph B. Stanford[2] and Ivana Zecevic[3]

https://jmedicalcasereports.biomedcentral.com/articles/10.1186/s13256-022-03465-w

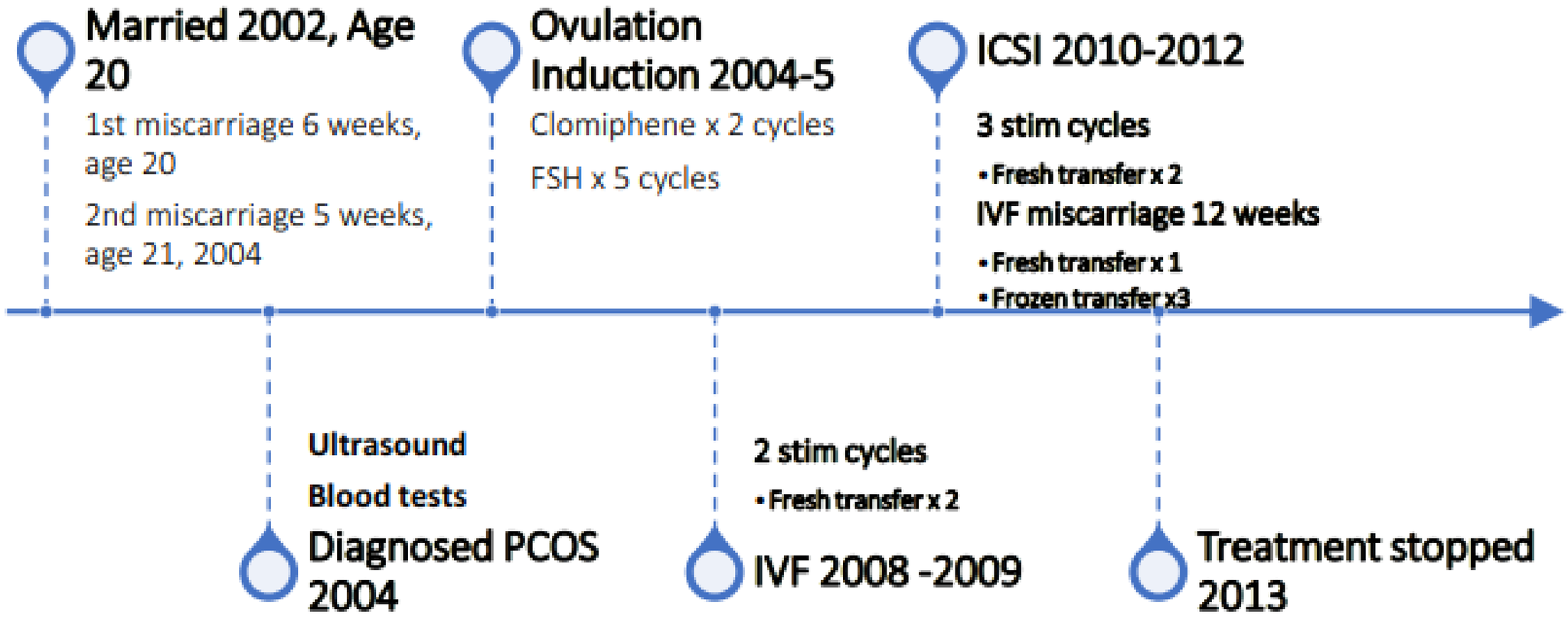


Fig. 1 History timeline

Table 2 *In vitro* fertilization/intracytoplasmic sperm injection summary

Date	ICSI	IVF	Location	No. of embryos	Grade of embryos transferred (TF)	Fresh or frozen	Nonimplant	Birth, misc ectopic
1. 12/2008		x	Zagreb	2	2, 8-cells and 6-cells	Fresh	x	
2. 05/2009		x	Zagreb	2	2, stage morula	Fresh	x	
3. 07/2010	x		Zagreb	2	2, 1 morula & 8-cells	Fresh	x	
4. 11/2010	x		Zagreb	3	3, Blastocyst	Fresh		Misc.-12w
5. 05/2011			Zagreb	1	1 6-cells	Frozen	x	
6. 10/2011	x		Zagreb	2	2, 6-cells and 4-cells	Fresh	x	
7. 10/2012			Zagreb	1	1, 8-cells	Frozen	x	
8. 12/2012			Zagreb	1	1, unknown	Frozen	x	

Infertility – 16 years, 3 misc, 8 Embryo T/F

Polycystic ovaries diagnosed in 2004

Cycle 45-53 days

BMI 35.6

AMH 46.4pmol/l (2019)

DHEA-s 11.04 umol/l

RRM Diagnoses

1. Polycystic ovarian syndrome diagnosed in 2004
2. Hypothyroidism (previously known)
3. Poor follicle function
4. Low endorphins (clinical)
5. Uterine Septum – surgically corrected in 2020
6. Balanced Robertsonian translocation (Ch 13-14)

3rd balanced cycle after surgery

Starting 04-9-2020 PDF A4 PDF

Day	1	2	3	4	5	6	7
Date	04-9-2020	05-9-2020	06-9-2020	07-9-2020	08-9-2020	09-9-2020	10-9-2020
Code	M	M	H	M	V TB	P V TB	1 D
Sex							
Meds	D3: 4000iu O3: 1100mg Fa: 4mcg LDN: 4.5mg Pr: 5mg Myo: 2000mg Euthyrox : 25mg evening primros e oil caps: 1300mg	D3: 4000iu O3: 1100mg Fa: 4mcg LDN: 4.5mg Pr: 5mg Myo: 2000mg Euthyrox : 25mg evening primros e oil caps: 1300mg	L: 4qty D3: 4000iu O3: 1100mg Fa: 4mcg LDN: 4.5mg Myo: 2000mg Euthyrox : 25mg evening primros e oil caps: 1300mg	L: 4qty D3: 4000iu O3: 1100mg Fa: 4mcg LDN: 4.5mg Myo: 2000mg Euthyrox : 25mg evening primros e oil caps: 1300mg	L: 4qty D3: 4000iu O3: 1100mg Fa: 4mcg LDN: 4.5mg Myo: 2000mg Euthyrox : 25mg evening primros e oil caps: 1300mg	D3: 4000iu O3: 1100mg Fa: 4mcg LDN: 4.5mg Myo: 2000mg Euthyrox : 25mg evening primros e oil caps: 1300mg	D3: 4000iu O3: 1100mg Fa: 4mcg LDN: 4.5mg Pr: 5mg Myo: 2000mg Euthyrox : 25mg evening primros e oil caps: 1300mg
Tests							

Day	8	9	10	11	12	13	14
Date	11-9-2020	12-9-2020	13-9-2020	14-9-2020	15-9-2020	16-9-2020	17-9-2020
Code	2 D	PV	1PV	1V	1V	P 1V	1 D
Sex	♥	♥			♥		♥
Meds	D3: 4000iu O3: 1100mg Fa: 4mcg LDN: 4.5mg Pr: 5mg Myo: 2000mg Euthyrox : 25mg evening primros e oil caps: 1300mg	D3: 4000iu O3: 1100mg Fa: 4mcg LDN: 4.5mg Pr: 5mg Myo: 2000mg Euthyrox : 25mg evening primros e oil caps: 1300mg	D3: 4000iu O3: 1100mg Fa: 4mcg LDN: 4.5mg Pr: 5mg Myo: 2000mg Euthyrox : 25mg evening primros e oil caps: 1300mg NAC: 1200mg	D3: 4000iu O3: 1100mg Fa: 4mcg LDN: 4.5mg Pr: 5mg Myo: 2000mg Euthyrox : 25mg evening primros e oil caps: 1300mg NAC: 1200mg	D3: 4000iu O3: 1100mg Fa: 4mcg LDN: 4.5mg Pr: 5mg Myo: 2000mg Euthyrox : 25mg evening primros e oil caps: 1300mg NAC: 1200mg	H: 10000iu D3: 4000iu O3: 1100mg Fa: 4mcg LDN: 4.5mg Pr: 5mg Myo: 2000mg Euthyrox : 25mg evening primros e oil caps: 1300mg NAC: 1200mg	D3: 4000iu O3: 1100mg Fa: 4mcg LDN: 4.5mg Pr: 5mg Myo: 2000mg Euthyrox : 25mg evening primros e oil caps: 1300mg NAC: 1200mg
Tests				ufs: follicle			

Day	15	16	17	18	19	20	21
Date	18-9-2020	19-9-2020	20-9-2020	21-9-2020	22-9-2020	23-9-2020	24-9-2020
Code	2 D	3 D	4 D	5 D	6 D	7 D	8 D
Sex	♥	♥				♥	
Meds	D3: 4000iu O3: 1100mg Fa: 4mcg LDN: 4.5mg Pr: 5mg Myo: 2000mg Euthyrox : 25mg evening primros e oil caps: 1300mg NAC: 1200mg	D3: 4000iu O3: 1100mg Fa: 4mcg LDN: 4.5mg Myo: 2000mg Euthyrox : 25mg evening primros e oil caps: 1300mg NAC: 1200mg	P: 200mg D3: 4000iu O3: 1100mg Fa: 4mcg LDN: 4.5mg Pr: 5mg Myo: 2000mg Euthyrox : 25mg	H: 1500iu P: 200mg D3: 4000iu O3: 1100mg Fa: 4mcg LDN: 4.5mg Pr: 5mg Myo: 2000mg Euthyrox : 25mg	P: 200mg D3: 4000iu O3: 1100mg Fa: 4mcg LDN: 4.5mg Myo: 2000mg Euthyrox : 25mg	H: 1500iu P: 200mg D3: 4000iu O3: 1100mg Fa: 4mcg LDN: 4.5mg Myo: 2000mg Euthyrox : 25mg	P: 200mg D3: 4000iu O3: 1100mg Fa: 4mcg LDN: 4.5mg Myo: 2000mg Euthyrox : 25mg
Tests						ufs: follicle	prog: 165.4 oes: 938.5

Day	22	23	24	25	26	27	28
Date	25-9-2020	26-9-2020	27-9-2020	28-9-2020	29-9-2020	30-9-2020	01-10-2020
Code	9 D	10 D	11 D	12 D	13 D	14 P	15 P
Sex	♥	♥	♥				
Meds	P: 200mg D3: 4000iu O3: 1100mg Fa: 4mcg LDN: 4.5mg Myo: 2000mg Euthyrox : 25mg	P: 200mg D3: 4000iu O3: 1100mg Fa: 4mcg LDN: 4.5mg Myo: 2000mg Euthyrox : 25mg	P: 200mg D3: 4000iu O3: 1100mg Fa: 4mcg LDN: 4.5mg Myo: 2000mg Euthyrox : 25mg	P: 200mg D3: 4000iu O3: 1100mg Fa: 4mcg LDN: 4.5mg Myo: 2000mg Euthyrox : 25mg	D3: 4000iu O3: 1100mg Fa: 4mcg LDN: 4.5mg Myo: 2000mg Euthyrox : 25mg	D3: 4000iu O3: 1100mg Fa: 4mcg LDN: 4.5mg Myo: 2000mg Euthyrox : 25mg	D3: 4000iu O3: 1100mg Fa: 4mcg LDN: 4.5mg Myo: 2000mg Euthyrox : 25mg
Tests							

P 164 nmol/l
E 938 pmol/l

Positive Pregnancy test

Baby Boy June 2021

Elective C-Section for malpresentation

39 weeks

Baby Boy

3.670kg (8lb 1oz)

Mum and baby well

Baby boy Sept 2024

Spontaneously conceived

Hormone support during pregnancy


HAPPY DAY

PUBLISHED CASE REPORTS

1. 16 YEARS INFERTILITY
2. 5 PREGNANCY LOSSES

frontiers | Frontiers in Medicine

TYPE Case Report
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Successful pregnancy using oral DHEA treatment for hypoandrogenemia in a 30-year-old female with 5 recurrent miscarriages, including fetal demise at 24 weeks: a case report

Phil C. Boyle*, Codruta Pandalache and Craig Turczynski

NeoFertility Clinic, Dublin, Ireland

Hypoandrogenemia is not usually considered as a potential cause of recurrent miscarriage. We present the case of a 30-year-old female with 6 previous pregnancies resulting in one live birth and 5 pregnancy losses, including fetal demise at 24 weeks gestation. She had standard investigations after her 4th loss, at a specialized miscarriage clinic. Lupus anticoagulant, anticardiolipin antibodies, thyroid function, parental karyotypes were all normal. Fetal products

30yrs, 6 pregnancies, 1 live birth

Reason for Request: DAY 3

24 Feb 2022

Test Name:	Result:	Flag:	Reference Range:
Testosterone	<0.4 nmol/L		0.3-1.7
Sex Hormone Binding Globulin	78.1 nmol/L		24.6-122
Free Testosterone Index	<0.5		0.3-5.6
DHEA Sulphate	1.8 umol/L	Low	2.7-9.2
Thyroglobulin	8.8 ng/ml		3.5-77
Anti-Thyroglobulin	<20 IU/ml		0-115

LOW Androgen Levels

KEY FINDINGS

1. LOW DHEA
2. LOW ENDORPHINS
3. LOW PROGESTERONE

30yrs, 6 pregnancies, 1 live birth

Clomid 50mg	50mg daily for 5 days, start day 3 of cycle
HCG (Gonasi) 10,000 iu SC with pos ov test	2 x 5,000iu vials.
HCG (Gonasi) 2,500iu Peak +3,5,7 of the cycle	3 x 5000iu Vials

Cycle of conception

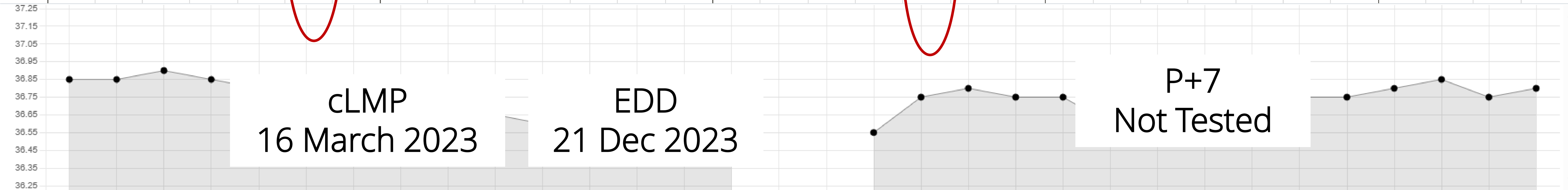
Starting 11-3-2023 PDF

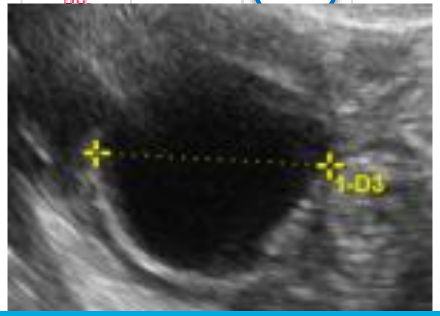
Day	1	2	3	4	5	6	7	8
Date	Sat 11-3-2023	Sun 12-3-2023	Mon 13-3-2023	Tues 14-3-2023	Wed 15-3-2023	Thurs 16-3-2023	Fri 17-3-2023	Sat 18-3-2023
Code	D LB	H	H	MB	D TB	D TB	D	D
Sex							♥	
Meds	D3: 4000iu O3: 2200mg Fa: 9mcg LDN: 4.5mg D: 25mg GI: 500mg B6: 1000mg	D3: 4000iu O3: 2200mg Fa: 9mcg LDN: 4.5mg D: 25mg GI: 500mg B6: 1000mg	C: 50mg D3: 4000iu O3: 2200mg Fa: 9mcg LDN: 4.5mg D: 25mg GI: 500mg B6: 1000mg	C: 50mg D3: 4000iu O3: 2200mg Fa: 9mcg LDN: 4.5mg D: 25mg GI: 500mg B6: 1000mg	C: 50mg D3: 4000iu O3: 2200mg Fa: 9mcg LDN: 4.5mg D: 25mg GI: 500mg B6: 1000mg	C: 50mg D3: 4000iu O3: 2200mg Fa: 9mcg LDN: 4.5mg D: 25mg GI: 500mg B6: 1000mg	C: 50mg D3: 4000iu O3: 2200mg Fa: 9mcg LDN: 4.5mg D: 25mg GI: 500mg B6: 1000mg	D3: 4000iu O3: 2200mg Fa: 9mcg LDN: 4.5mg D: 25mg GI: 500mg B6: 1000mg

Day	9	10	11	12	13	14	15	16
Date	Sun 19-3-2023	Mon 20-3-2023	Tues 21-3-2023	Wed 22-3-2023	Thurs 23-3-2023	Fri 24-3-2023	Sat 25-3-2023	Sun 26-3-2023
Code	D	D	D	D	D	D	D	1G?
Sex	♥			♥			♥	
Meds	D3: 4000iu O3: 2200mg Fa: 9mcg LDN: 4.5mg D: 25mg GI: 500mg B6: 1000mg	D3: 4000iu O3: 2200mg Fa: 9mcg LDN: 4.5mg D: 25mg GI: 500mg B6: 1000mg	D3: 4000iu O3: 2200mg Fa: 9mcg LDN: 4.5mg D: 25mg GI: 500mg B6: 1000mg	D3: 4000iu O3: 2200mg Fa: 9mcg LDN: 4.5mg D: 25mg GI: 500mg B6: 1000mg	D3: 4000iu O3: 2200mg Fa: 9mcg LDN: 4.5mg D: 25mg GI: 500mg B6: 1000mg	C: 50mg D3: 4000iu O3: 2200mg Fa: 9mcg LDN: 4.5mg D: 25mg GI: 500mg B6: 1000mg	D3: 4000iu O3: 2200mg Fa: 9mcg LDN: 4.5mg D: 25mg GI: 500mg B6: 1000mg	

Day	17	18	19	20	21	22	23	24
Date	Mon 27-3-2023	Tues 28-3-2023	Wed 29-3-2023	Thurs 30-3-2023	Fri 31-3-2023	Sat 01-4-2023	Sun 02-4-2023	Mon 03-4-2023
Code	1G	PV	P 2CS	1 D	2 D	3 D	4 D	5 D
Sex		♥	♥	♥	♥			
Meds		D3: 4000iu O3: 2200mg LDN: 4.5mg D: 25mg GI: 500mg B6:	H: 10000iu Fa: 9mcg LDN: 4.5mg D: 25mg GI: 500mg	Fa: 9mcg LDN: 4.5mg D: 25mg GI: 500mg Dx: 100mg	Fa: 9mcg LDN: 4.5mg D: 25mg GI: 500mg Dx: 100mg	H: 2500iu Fa: 9mcg LDN: 4.5mg D: 25mg GI: 500mg Dx: 100mg		H: 2500iu Ct: 3mcg Fa: 9mcg LDN: 4.5mg D: 25mg GI: 500mg Dx: 100mg

Day	25	26	27	28	29	30	31	32
Date	Tues 04-4-2023	Wed 05-4-2023	Thurs 06-4-2023	Fri 07-4-2023	Sat 08-4-2023	Sun 09-4-2023	Mon 10-4-2023	Tues 11-4-2023
Code	6 D	7 D	8 D	9 D	10 D	11 D	12 D	13 D
Sex	♥			♥		♥		♥
Meds	Ct: 3mcg Fa: 9mcg LDN: 4.5mg D: 25mg GI: 500mg Dx: 100mg	H: 2500iu Ct: 3mcg Fa: 9mcg LDN: 4.5mg D: 25mg GI: 500mg Dx: 100mg	Ct: 3mcg Fa: 9mcg LDN: 4.5mg D: 25mg GI: 500mg Dx: 100mg	Ct: 3mcg Fa: 9mcg LDN: 4.5mg D: 25mg GI: 500mg Dx: 100mg	Ct: 3mcg Fa: 9mcg LDN: 4.5mg D: 25mg GI: 500mg Dx: 100mg	Ct: 3mcg Fa: 9mcg LDN: 4.5mg D: 25mg GI: 500mg Dx: 100mg	Ct: 3mcg Fa: 9mcg LDN: 4.5mg D: 25mg GI: 500mg Dx: 100mg	Ct: 3mcg Fa: 9mcg LDN: 4.5mg D: 25mg GI: 500mg Dx: 100mg





Pregnancy prescription

We continued treatment during pregnancy with

1. DHEA 20 mg once daily
2. Cyclogest® (Progesterone) pessaries 400 mg pv twice daily
3. Naltrexone 4.5 mg nightly.

30yrs, 6 pregnancies, 1 live birth

Date	Current Rx	Blood date	Gestation	Prog nmo	Prog ng/n	Oestradiol	Change of Rx	Comments
14-04-2023	P+16		positive today					
17-04-2023		17-04-2023	4w5d (P+19)	30.6	9.62	1524		HCG 2025.1
24-04-2023	Cyclo bd, DHEA 10 bd	24-04-2023	5w5d	75.8	23.84	1893	slow rising HCG - cautious	HCG 14659.8
28-04-2023	Cyclo bd, DHEA 10 bd	28-04-2023	6w2d	70.8	22.26	2138	C to call	HCG 29690.6

Successful Pregnancy

- Planned C section, Nov 2023
- Healthy Boy
- 6lb 12 oz (3080g)

Dr Achebe and Dr Craig Turczynski July 2025

Research Paper of the year award 2025 American Academy of FertilityCare Professionals

Boyle P, Andralojc K, van der Velden S, Najmabadi S, de Groot T, Turczynski C, Stanford JB. **Restoration of serum estradiol and reduced incidence of miscarriage in patients with low serum estradiol during pregnancy**: a retrospective cohort study using a multifactorial protocol including DHEA. Front Reprod Health. 2024 Jan 4;5:1321284. doi[10.3389/frph.2023.1321284](https://doi.org/10.3389/frph.2023.1321284)

neo fertility

Retrospective review of evolving clinical practice 2009-2017

	Treatment		
	No Estradiol or DHEA 2009–2011	Estradiol 2013–2015	DHEA 2015–2017

1. Observation… 2009-2011….Weekly blood tests 1st 3 weeks
2. Estradiol…… 2013-2015
3. DHEA ……2015-2017

Current practice is to identify and treat DHEA deficiency *before conceiving*, so less DHEA is needed during pregnancy

3. Risk of miscarriage reduced from 45.5% to 17.5% (p = 0.038) with DHEA treatment during pregnancy

TABLE 4 Estradiol or DHEA supplementation and pregnancy outcome in 114 pregnant women with low serum estradiol levels in early pregnancy.

	Treatment		
	No Estradiol or DHEA 2009–2011	Estradiol 2013–2015	DHEA 2015–2017
Total patients	22	52	40
Pregnancy outcomes *n* (%)			
Miscarriage	10 (45.5)	11 (21.2)	7 (17.5)*
Premature delivery	0 (0)	4 (7.7)	3 (7.5)
Term delivery	11 (50.0)	36 (69.2)	30 (75.0)
Missing	1 (4.5)	1 (1.9)	0 (0)
Births	11	40	33
Fetal outcomes *n* (%)			
Very low birth weight (<1,500 gr)	0	0	0
Low birth weight (1,500–2,500 gr)	1 (9.1)	0	2 (6.1)
Preterm (<37 weeks	0	4 (10.0)	3 (9.1)
Small for gestational age	2 (18.2)	3 (7.5)	2 (6.1)
Large for gestational age	4 (36.4)	6 (15.0)	6 (18.2)

DHEA = dehydroepiandrosterone.
*$p < 0.05$ as compared to "No Estradiol or DHEA".

KEY POINTS

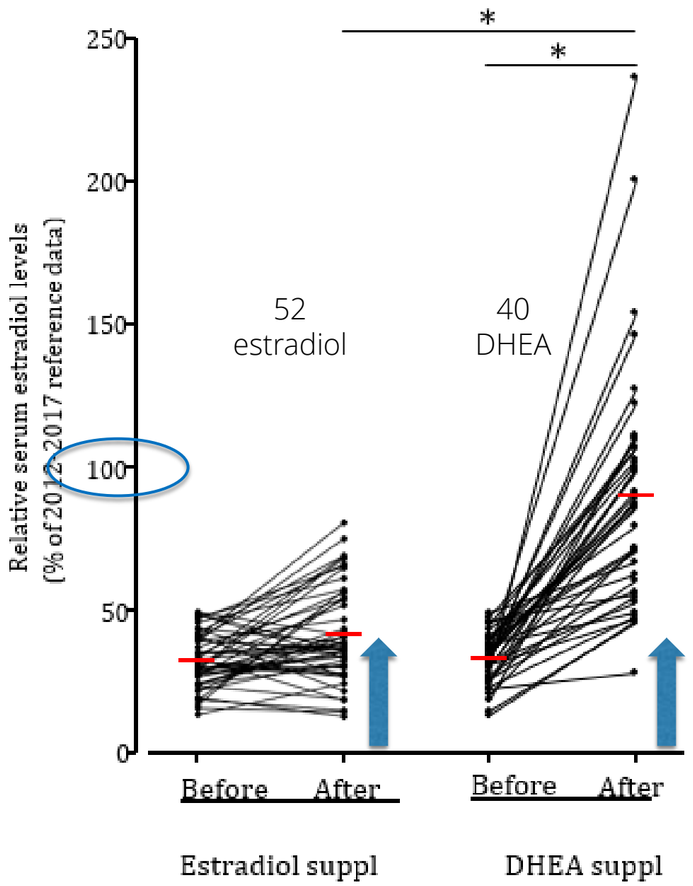
1. THIS TREATMENT IS FOR WOMEN WITH LOW OESTRADIOL IN PREGNANCY

2. DHEA DRAMATICALLY IMPROVED LOW OESTRADIOL LEVELS ($P < 0.0001$)

3. RISK OF MISCARRIAGE REDUCED FROM 45.5% TO 17.5% ($P = 0.038$) WITH DHEA TREATMENT DURING PREGNANCY

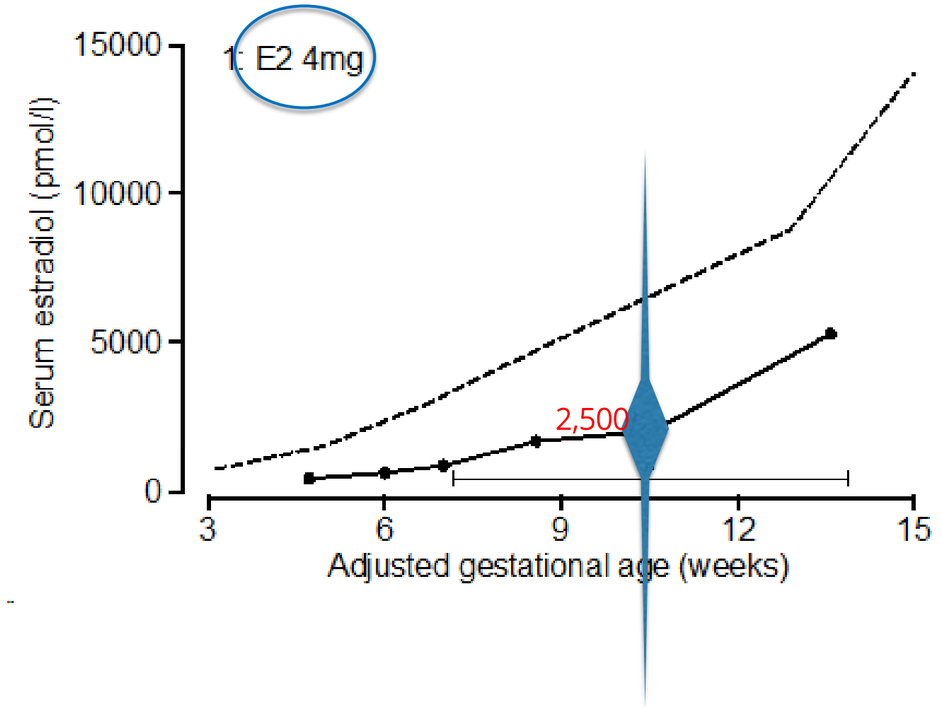
4. FIRST PAPER SHOWING BENEFITS OF DHEA TREATMENT DURING PREGNANCY

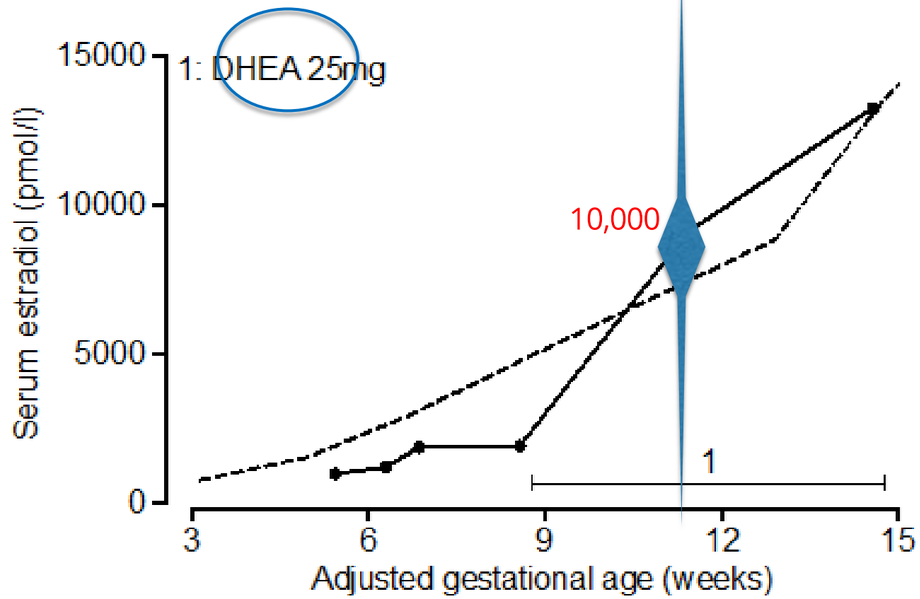
2. DHEA dramatically improved low oestradiol levels



Among women with low serum estradiol levels in early pregnancy, the mean relative serum estradiol level increased from 33.2% to 90.2% ($p < 0.0001$), after supplementation with DHEA

2. DHEA dramatically improved low oestradiol levels





DHEA supplementation led to significantly higher relative serum estradiol levels as compared to estradiol supplementation ($p < 0.0001$)

4. First paper showing benefits of DHEA during pregnancy

DHEA

- May improve egg quality pre-conception
- Continue during pregnancy for optimal oestradiol

More studies are needed
This paper offers hope to women with recurrent miscarriage.

Future studies will likely show DHEA reduces risk of premature delivery.

4lb 13 oz, 35 weeks, Oct 2017

5lb 6 oz, 36 weeks, March 2020

DHEA treatment during pregnancy

Measure total and free testosterone during pregnancy treated with DHEA

RRM COMPARED TO IVF

neo fertility

Peer Reviewed Publication 2025

ORIGINAL RESEARCH

JRRM JOURNAL OF RESTORATIVE REPRODUCTIVE MEDICINE

Restorative reproductive medicine (RRM) outcomes compared to in-vitro fertilization (IVF) for the treatment of infertility: a retrospective evaluation of a 2019 clinic cohort compared to one cycle of IVF

Phil C. Boyle[1], Agnes Toth[1], Monica Minjeur[2], Craig Turczynski[1,3]

[1]NeoFertility Clinic, Suite 7, Beacon Mall, Sandyford, Dublin 18; [2]Radiant Clinic, Cedar Rapids, IA, 52402; [3]Billings Ovulation Method Association. St Cloud, MN 56302

DOI: https://doi.org/10.63264/gejytw70

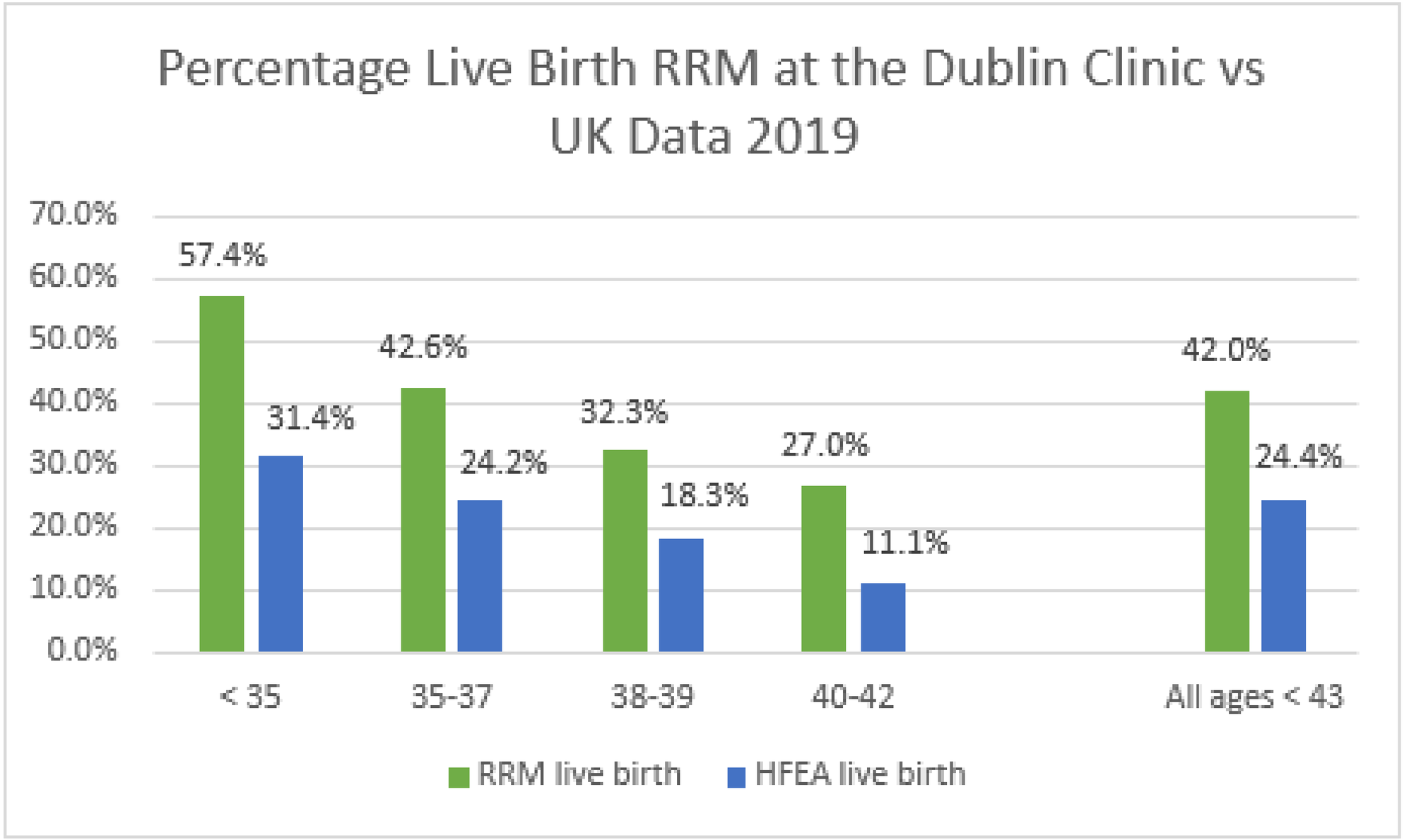
JOURNAL OF RESTORATIVE REPRODUCTIVE MEDICINE |
https://rrmjournal.org/index.php/jrrm/article/view/9

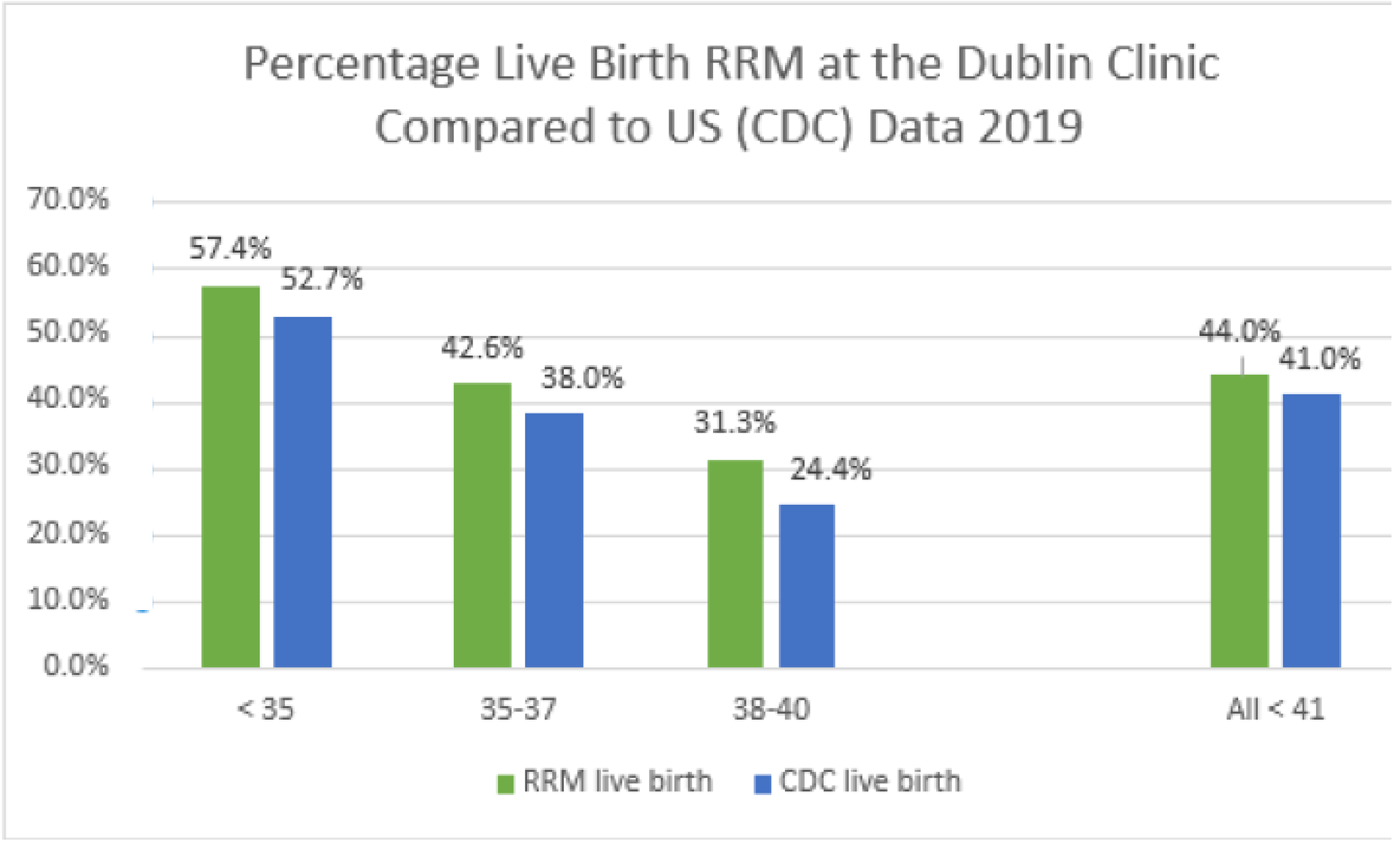
Study Outline

RRM and IVF outcomes 2019 Data

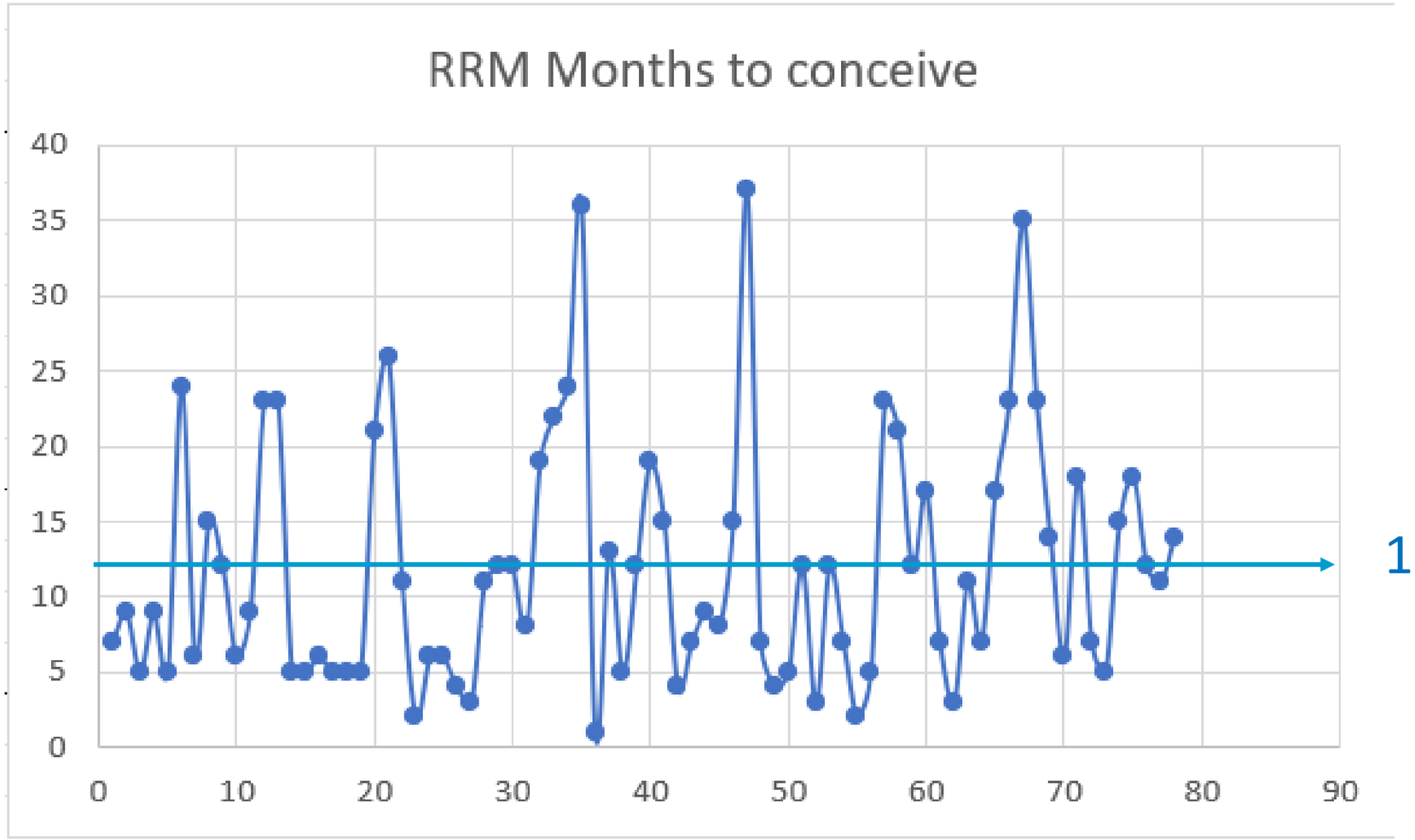
1. Objectives
2. Methods
3. Results
4. Conclusion
5. Limitations

	RRM	HFEA (UK)	CDC/SART (USA)
Live Birth Rate	41%	24%	37%
Twins	2.5%	7%	6%
Premature Birth	6.5%	N/A	14.4%
Very premature	0%	N/A	N/A
Birth Weight	3422g (7lb9oz)	N/A	N/A
Weeks gestation	39w	N/A	N/A


Percentage Live Birth RRM at the Dublin Clinic vs UK Data 2019
70.0%
60.0%
50.0%
40.0%
30.0%
20.0%
10.0%
0.0%
57.4%
31.4%
42.6%
24.2%
32.3%
18.3%
27.0%
11.1%
42.0%
24.4%
< 35
35-37
38-39
40-42
All ages < 43
RRM live birth
HFEA live birth


Percentage Live Birth RRM at the Dublin Clinic
Compared to US (CDC) Data 2019
70.0%
60.0%
50.0%
40.0%
30.0%
20.0%
10.0%
0.0%
57.4%
52.7%
42.6%
38.0%
31.3%
24.4%
44.0%
41.0%
< 35
35-37
38-40
All < 41
RRM live birth
CDC live birth

RRM Data



12 months mean

RRM Data

	RRM	IVF
Live Birth Rate	44%	41%
Lower cost	✓	
Improved Health	✓	
Individualized treatment	✓	
Minimal side effects	✓	
Noninvasive	✓	
Twin pregnancy rate	2.5%	6%
Premature Delivery rate	6.5%	14%
Repeat successful pregnancy	✓	
Surplus Embryos	None	Many

Age 40 and under

RRM Data

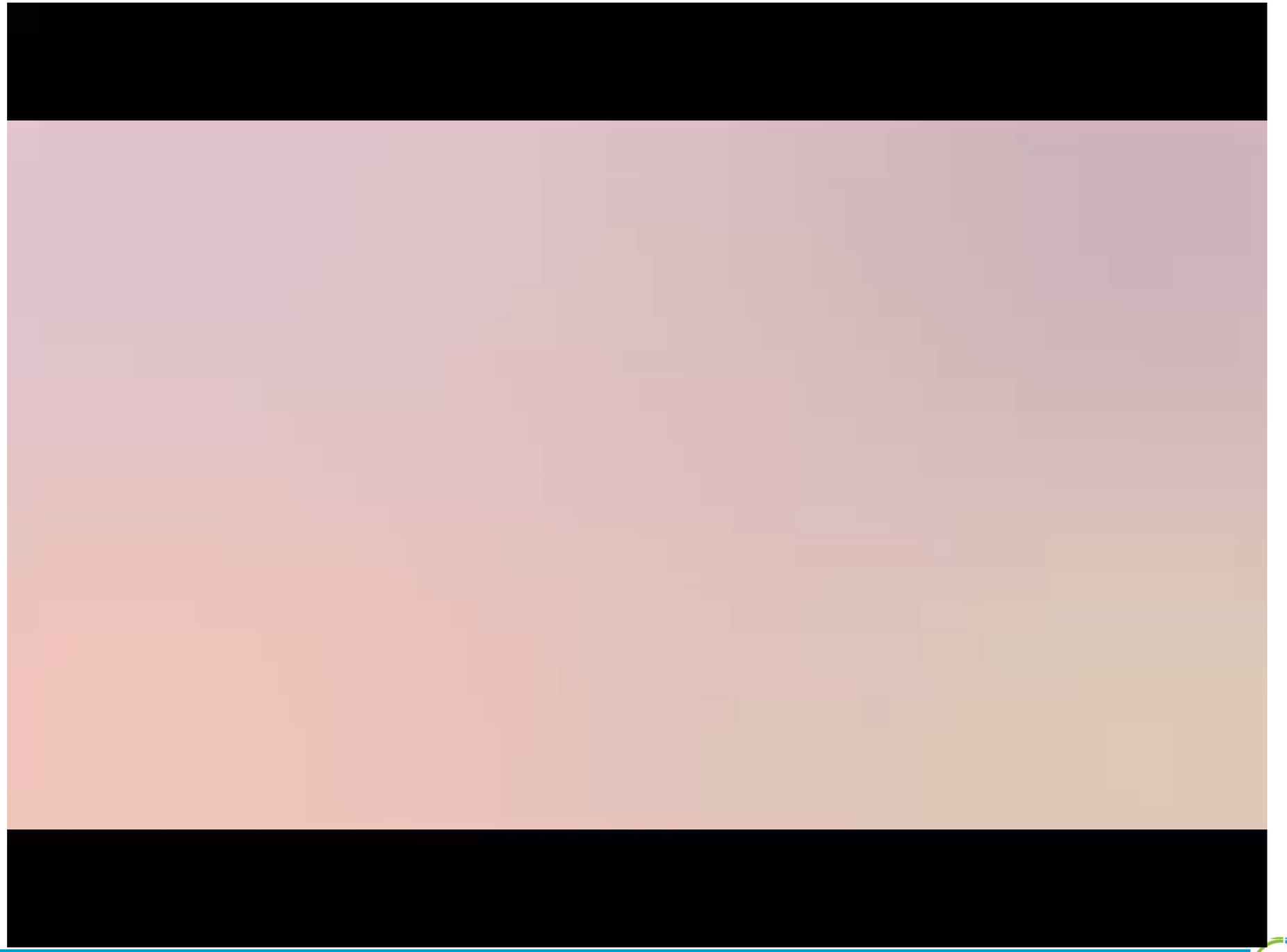
May have comparable or higher success (Live Birth Rate)

Less than half the cost per couple

Improved maternal and fetal health

Reduced number of premature babies and low birth weight, this data needs to be included in cost analysis

The majority can have a repeat successful pregnancy



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2. Boyle PC, Pandalache C, Turczynski C. Successful pregnancy using oral DHEA treatment for hypoandrogenemia in a 30-year-old female with 5 recurrent miscarriages, including fetal demise at 24 weeks: a case report. Front Med (Lausanne). 2024 Feb 15;11:1358563. doi: 10.3389/fmed.2024.1358563. PMID: 38426161; PMCID: PMC10902037.

3. Boyle P, Toth A, Minjeur M, Turczynski C. **Restorative reproductive medicine (RRM) outcomes compared to in-vitro fertilization (IVF) for the treatment of infertility**: a retrospective evaluation of a 2019 clinic cohort compared to one cycle of IVF. J Restorative Reprod Med [Internet]. 2025 Sep. 16 Available from: https://rrmjournal.org/index.php/jrrm/article/view/9

4. https://orcid.org/my-orcid?orcid=0000-0003-2555-6294

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5. Boyle P, Andralojc K, van der Velden S, Najmabadi S, de Groot T, Turczynski C, Stanford JB**. Restoration of serum estradiol and reduced incidence of miscarriage in patients with low serum estradiol during pregnancy**: a retrospective cohort study using a multifactorial protocol including DHEA. Front Reprod Health. 2024 Jan 4;5:1321284. doi: 10.3389/frph.2023.1321284

Thank You