



DIMINISHED OVARIAN RESERVE

DR AZITA SHAFIGHIAN

OBS & GYN

SUBSPECIALITY INFERTILITY



DEFINITION



DOR is defined as a decrease in the number of quality & quantity of oocytes

Prevalence of DOR in ART is 10%

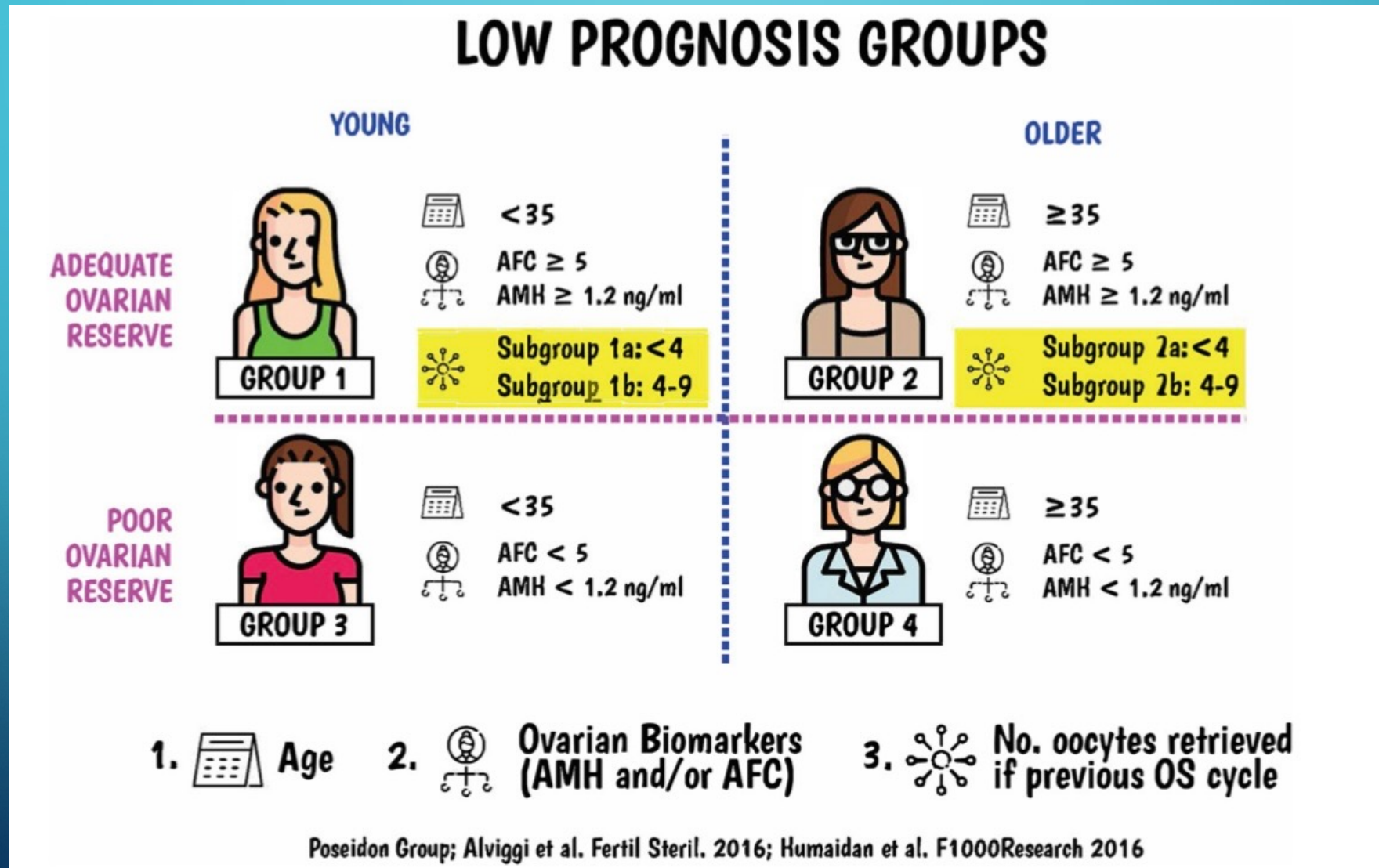


BOLOGNA CRITERIA



1. Advanced maternal age > 40 yrs. or any other risk factors for poor ovarian response.
2. Previous POR (≤ 3 oocytes with conventional stimulation of >149 IU FSH daily), and
3. An abnormal ovarian reserve test ($AFC < 5-7$, or $AMH < 0.5-1.1$ ng/ml)

THE POSEIDON CRITERIA



“

MANAGEMENT STRATEGIES FOR POSEIDON GROUP 1

”

1. HD-GN
2. r-LH
3. Dual stimulation
4. Pre-treatment (OC – Estradiol)
5. Adjuvant treatments

“ MANAGEMENT STRATEGIES FOR POSEIDON GROUP 2

1

- Option for downregulation: long agonist protocol or antagonist protocol
- Dose for gonadotrophin: Higher FSH dose over the standard dose (150 - 225 IU daily) for OS

2

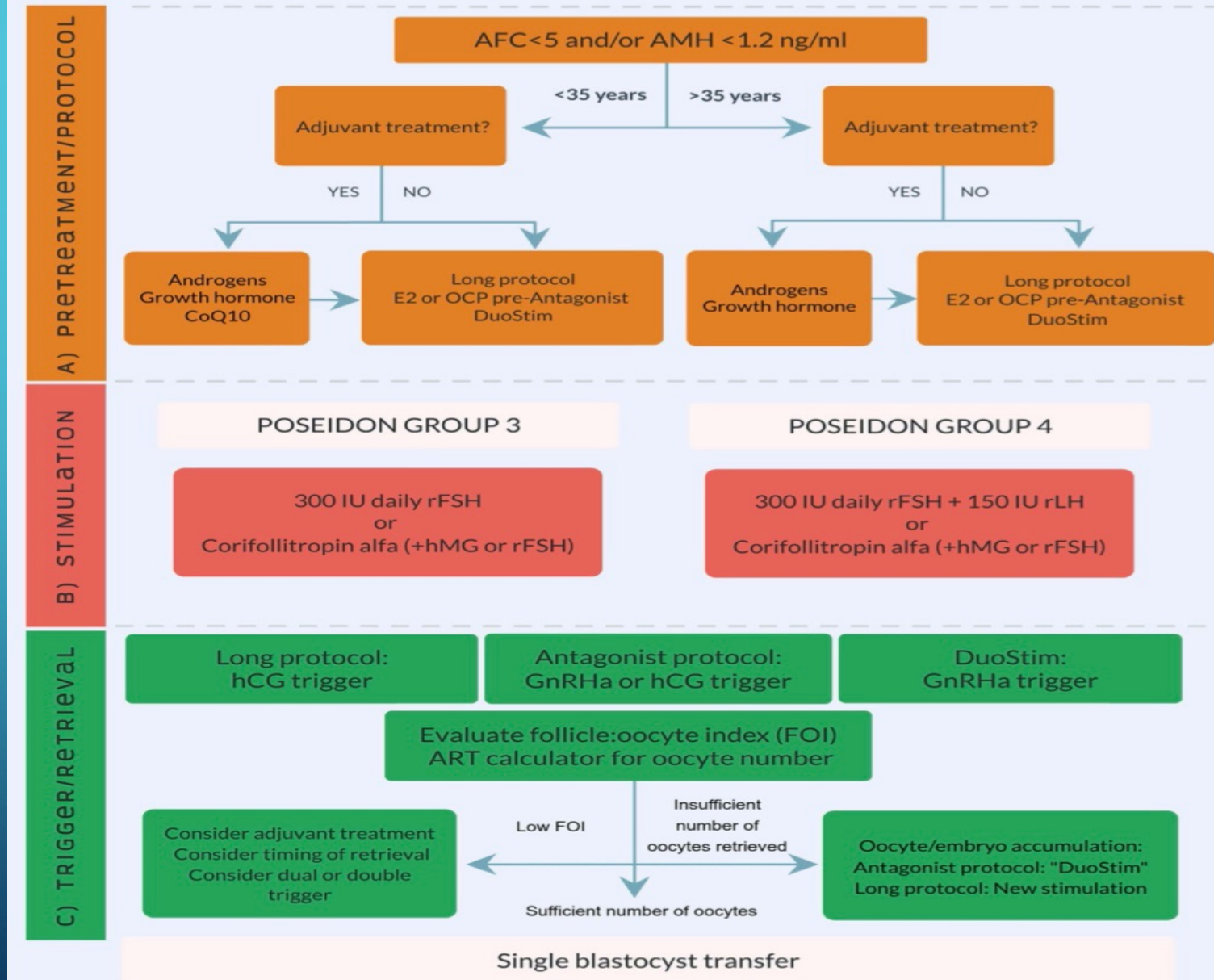
- Addition of LH: optional; can be considered in women with LH receptor polymorphism; needs research & validation
- Trigger: hCG for GnRH agonist protocol; GnRH agonist or hCG trigger for antagonist protocol or GnRH agonist for double stimulation

3

- Novel strategy : Double stimulation; need for RCTs.
- Other options: Adjuvants such as androgen supplement / growth hormone; PGT- A need further research & validation

”

Best practice in Poseidon groups 3 and 4





CAUSES OF DOR

Age

Chemotherapy

Radiotherapy

Genetic mutations like FMR

Smoking

Ovarian surgeries

Autoimmune

Mumps

Tubal surgery



Idiopathic

Iatrogenic







“ OVARIAN RESERVE TESTS (ORTS) ”

1. FSH
 2. AMH
 3. AFC
 4. E2
 5. Inhibin B
 6. CC test
 7. GnRh agonist stimulation test
 8. Ovarian volume and blood flow
- 
- 



AMH VALUES

- PCOS
 - Ovarian suppression(OC- GnRh agonist)
 - Race and ethnicity
 - Ovarian surgery
 - Smoking
 - Low vit D
- 
- 



MANAGEMENTS



1.High dose gonadotropins



2. Agonists

- Short agonist
- Microdose flare
- Ultra-short
- Long agonist

3. Antagonists



- Fixed multiple dose
- Flexible multiple dose



4. Natural/minimal stimulation IVF



- Natural cycle
- Modified natural cycle (antagonist + small dose of FSH)
- Minimal stimulation (letrozole/clomiphene + FSH + antagonist)

“

5. Pretreatment interventions

- OCP
- Progesterone
- Estradiol

6. Recombinant LH


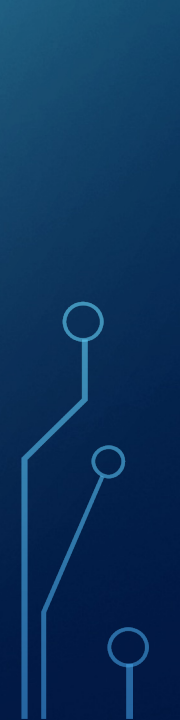
7. Double stimulation

8. Oocyte accumulation

”



9. Adjuvants

- Growth hormone
 - DHEA
 - Testosterone
 - Q10
 - Melatonin
 - Aspirin
- 
- 



10.Oocyte donation



11.Others

- Ovarian transplantation
- Mitochondrial transfer
- Stem cell

“

THANK YOU

”