PIPADOR REVISION

MRCOG Part 1 Revision Notes

Reproductive Medicine Drugs

PHARMACOLOGY • LECTURE 391

VISUAL EXAMINATION REVISION NOTES

2026 Edition

MRCOG PART 1 REVISION NOTES | PHARMACOLOGY

391 Reproductive Medicine Drugs

Ovulation induction and IVF drugs, protocols, OHSS and progesterone use

rFSH	GnRH antag.	Agonist trigger	Progesterone
Follicle stimulation	Prevents premature LH surge	↓ OHSS	Luteal support

■ KEY FACTS: Learning objectives

- Describe drugs used for ovulation induction and IVF and their mechanisms.
- Describe treatment protocols, monitoring and complications (OHSS, multiple pregnancy).
- Describe progesterone use in reproductive medicine and early pregnancy.

391.1 Drugs

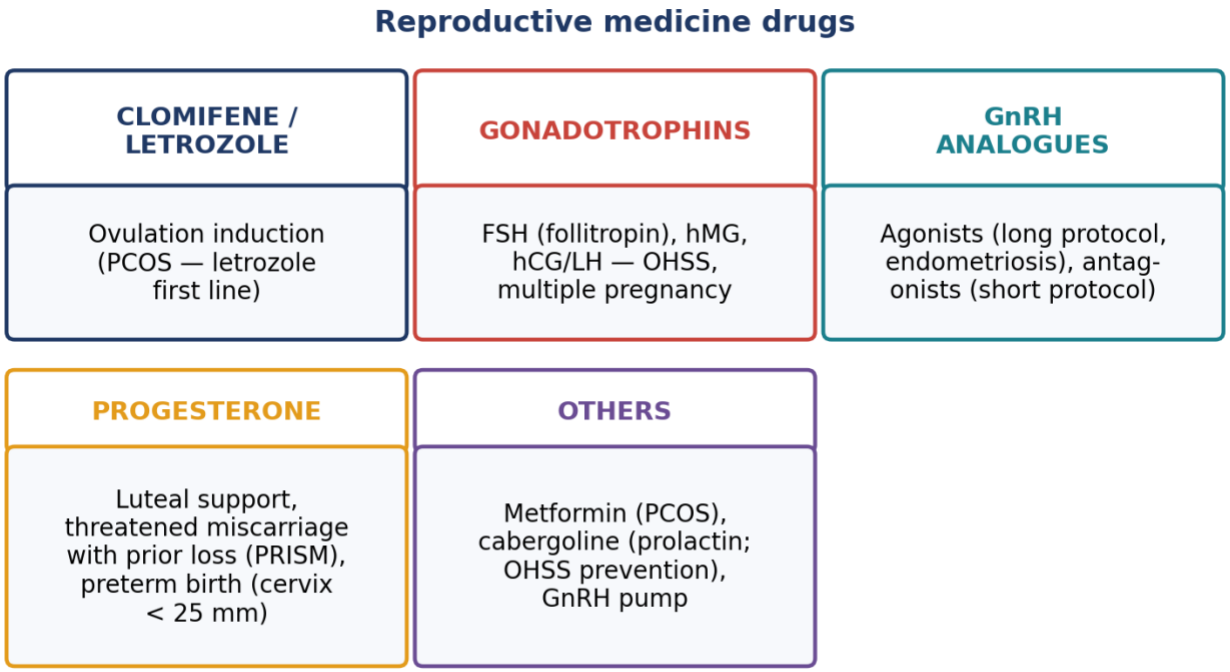


Figure 391.1 — Reproductive medicine drugs

Drug	Mechanism / notes
Clomifene	• SERM — blocks hypothalamic oestrogen feedback → ↑ FSH • ≤ 6 cycles (12 max) with follicle tracking • Antioestrogenic endometrium
Letrozole	• Aromatase inhibitor → ↓ oestrogen → ↑ FSH • Higher live birth in PCOS (off-label)
Gonadotrophins	• Recombinant FSH (follitropin α/β), urinary hMG (FSH + LH), recombinant LH • Dose by AMH/AFC/weight

Drug	Mechanism / notes
GnRH agonists	Initial flare then desensitisation (long protocol, endometriosis, fertility preservation)
GnRH antagonists	Immediate LH suppression (short protocol) — less OHSS
hCG	LH-like trigger; OHSS risk; luteal support (less used)
Progesterone	• Vaginal/IM/SC luteal support • Also preterm-birth prevention and threatened miscarriage with prior loss

391.2 IVF protocol

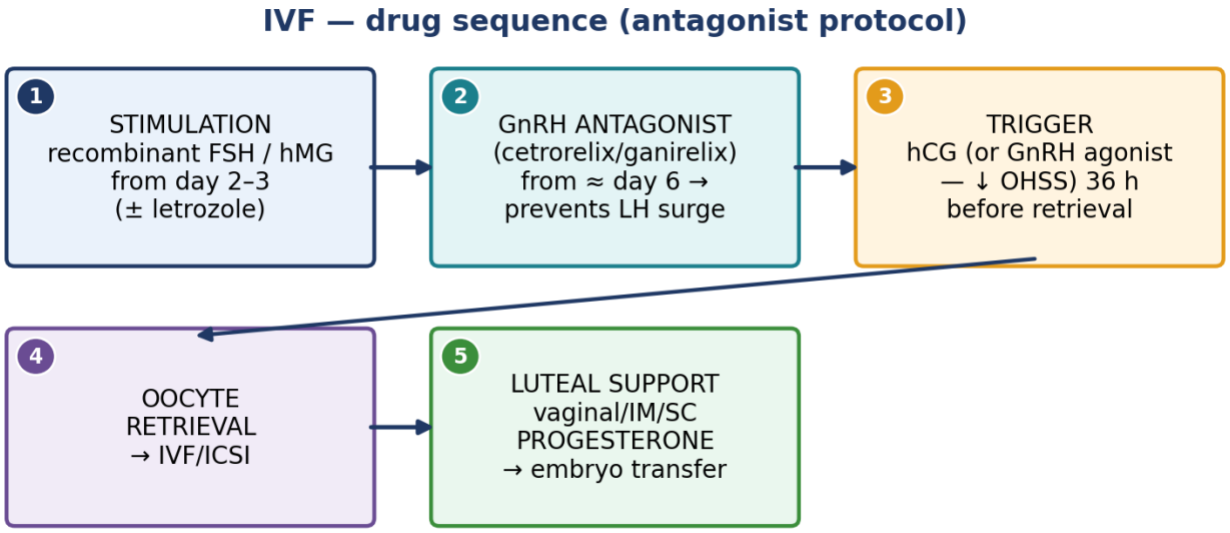


Figure 391.2 — IVF drug sequence

- **OHSS** (↑ VEGF from hCG-stimulated ovaries → capillary leak): prevent with antagonist protocol
  - **GnRH-agonist trigger**, freeze-all, cabergoline
  - Lower doses in high responders (PCOS, high AMH)
  - Severe → admission, thromboprophylaxis, fluid balance, paracentesis.
- **Multiple pregnancy**: single embryo transfer (HFEA target); monitor follicles in ovulation induction (cancel if > 3 follicles ≥ 14 mm).

391.3 Must-know summary

■ EXAM TIP

- Letrozole/clomifene for anovulation; gonadotrophins for IVF/ovulation induction.
- GnRH agonists (flare → downregulation) vs antagonists (immediate block).
- Trigger: hCG or GnRH agonist (↓ OHSS); progesterone luteal support.
- Complications: OHSS, multiple pregnancy, ectopic.

■ MNEMONIC / MEMORY AID

IVF drugs — 'Stimulate, Suppress, Trigger, Support'.