PIPADOR REVISION

# MRCOG Part 1 Revision Notes

## *HSG Results*

DATA INTERPRETATION • LECTURE 448

VISUAL EXAMINATION REVISION NOTES

*2026 Edition*

448

MRCOG PART 1 REVISION NOTES | DATA INTERPRETATION

# HSG Results

*Hysterosalpingography — definitions, technique, findings and worked cases*

| Free spill | Hydrosalpinx | Days 5–10 | Chlamydia |
|---|---|---|---|
| Patent tubes | Distal block | Timing | Screen first |

**■ KEY FACTS: Learning objectives**

- Define hysterosalpingography (HSG), tubal patency, spill, hydrosalpinx and cornual block.
- Describe indications, timing, risks and alternatives.
- Interpret normal and abnormal HSG findings.

## 448.1 Key definitions

| Term | Definition |
|---|---|
| **HSG** | X-ray of the uterine cavity and tubes after injecting radio-opaque contrast through the cervix |
| **HyCoSy** | Ultrasound equivalent using foam contrast (no radiation) |
| **Tubal patency** | Contrast flows through the tube |
| **Free (peritoneal) spill** | Contrast exits the fimbrial end and spreads freely in the pelvis — confirms patency |
| **Proximal (cornual) block** | No contrast enters the tube — true occlusion or muscular spasm |
| **Hydrosalpinx** | Distally blocked, fluid-filled dilated tube (usually post-infective) |
| **Loculated spill** | Contrast exits but pools — peritubal adhesions |
| **Filling defect** | Area in the uterine cavity where contrast is absent (polyp, submucous fibroid, adhesions) |

**■ IN PLAIN ENGLISH: HSG**

HSG answers two questions: **'Are the tubes open?'** (look for spill from both ends) and **'Is the cavity normal?'** (look for a smooth triangle without gaps).

## 448.2 Findings

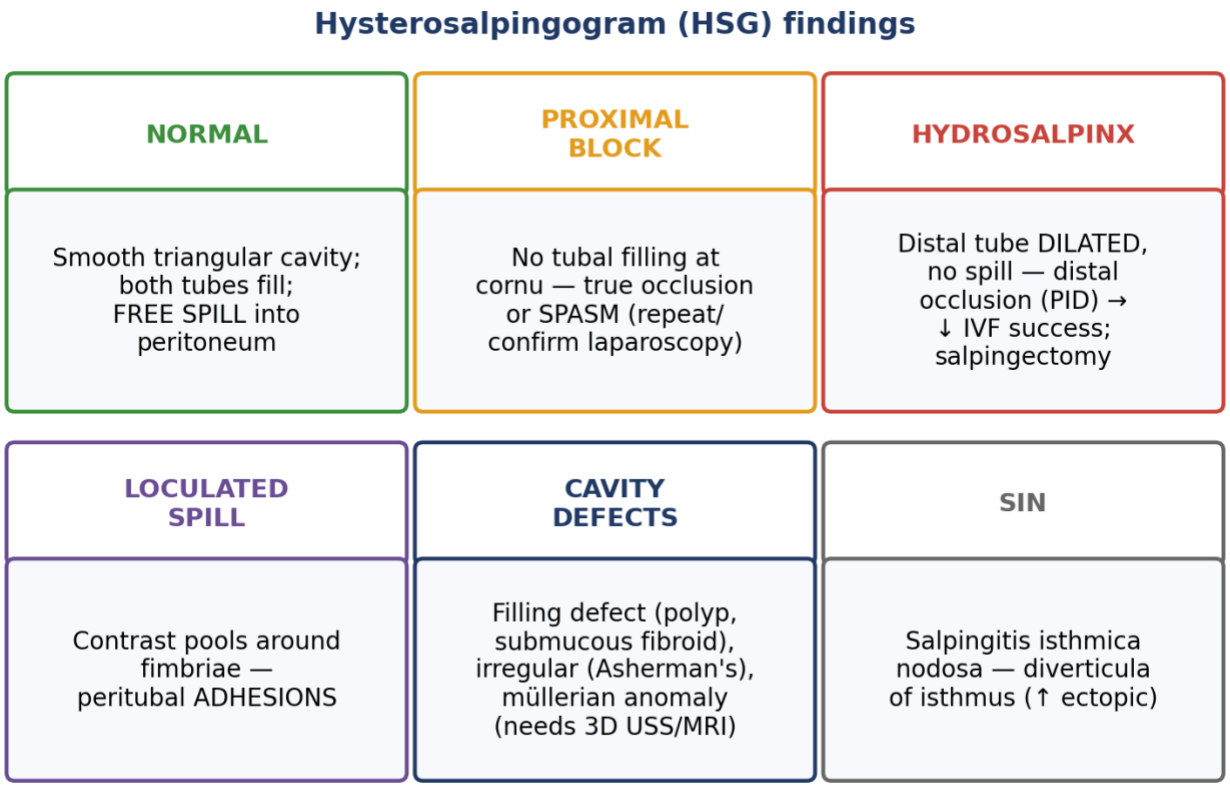



*Figure 448.1 — HSG findings*

## 448.3 When and how

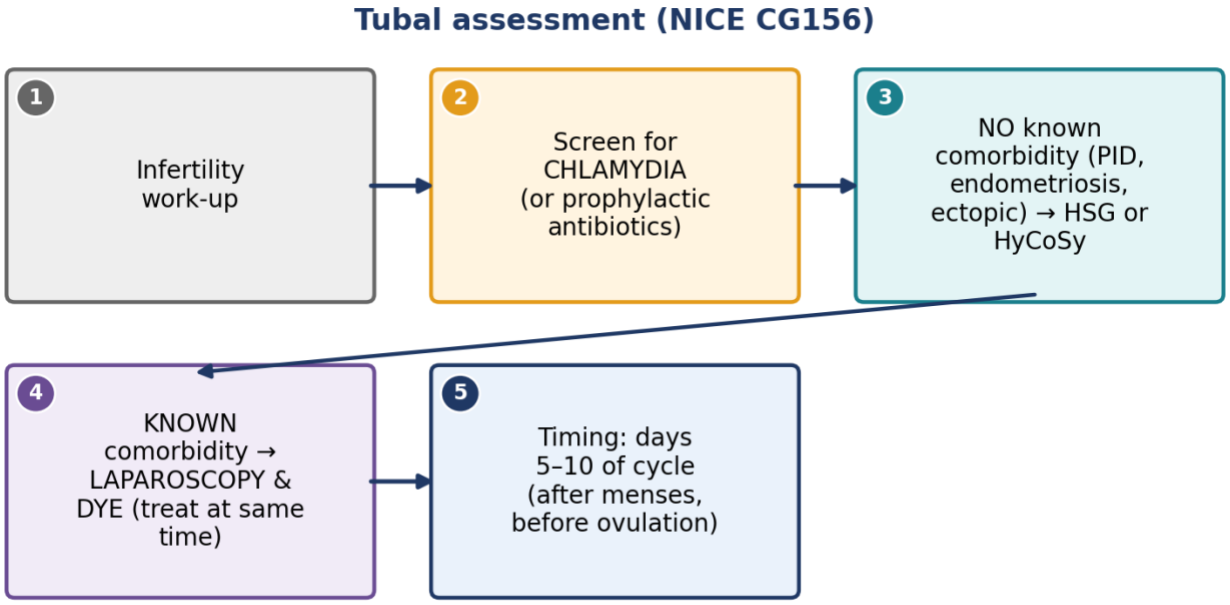



*Figure 448.2 — Tubal assessment (NICE CG156)*

| Topic | Details |
|---|---|
| **Timing** | • Days 5–10 (after menses, before ovulation) — avoids an early pregnancy<br>• Pregnancy test if any doubt |

| Topic | Details |
|---|---|
| **Infection** | Screen for chlamydia or give prophylactic antibiotics (risk of PID ≈ 1%) |
| **Risks** | Pain, vasovagal, infection, contrast allergy, small radiation dose |
| **Bonus** | Oil-based contrast flushing may modestly ↑ pregnancy rates |

## 448.4 Worked cases

■ WORKED EXAMPLE

**Case 1** — HSG: normal cavity, both tubes fill with free spill → **bilateral tubal patency**; proceed with other investigations/treatment.

**Case 2** — left tube fills with free spill; right tube does not fill → **unilateral proximal block** — may be spasm; still has a patent tube → no IVF needed on this basis alone.

**Case 3** — both tubes dilated distally, no spill → **bilateral hydrosalpinges** (previous PID) → IVF; recommend **salpingectomy** before IVF (hydrosalpinx fluid halves IVF success).

**Case 4** — smooth filling defect in the cavity → polyp/submucous fibroid → hysteroscopy.

■ COMMON PITFALLS

Labelling a unilateral cornual block as tubal disease without confirmation (spasm).

Doing HSG in women with known pelvic disease — laparoscopy and dye allows treatment.

## 448.5 Must-know summary

■ EXAM TIP

- HSG = contrast X-ray of cavity and tubes; free spill = patent.
- Proximal block (true or spasm), hydrosalpinx (distal block — salpingectomy before IVF), loculated spill (adhesions), filling defects.
- Days 5–10; chlamydia screen/prophylaxis.
- NICE: HSG/HyCoSy if no comorbidity; laparoscopy & dye if comorbidity.

■ MNEMONIC / MEMORY AID

**'Spill means Still open'**.