PIPADOR REVISION

MRCOG Part 1 Revision Notes

Maternal Sepsis

CLINICAL MANAGEMENT • LECTURE 483

VISUAL EXAMINATION REVISION NOTES

2026 Edition

483

MRCOG PART 1 REVISION NOTES | CLINICAL MANAGEMENT

Maternal Sepsis

Definitions, recognition, Sepsis Six, antibiotics, source control and pregnancy-specific care (RCOG GTG 64, NICE NG51)

Sepsis Six	GAS	Lactate ≥ 4	MEWS
Within 1 hour	Most feared organism	Septic shock risk	Early warning score

■ KEY FACTS: Learning objectives

- Define sepsis, septic shock and maternal sepsis.
- Describe causes, risk factors and recognition, including maternity early warning scores.
- Describe immediate management (Sepsis Six), antibiotic choice, source control, fetal considerations and specific management of group A streptococcal infection (RCOG GTG 64a/b, NICE NG51).

483.1 Key definitions

Term	Definition
Sepsis	Life-threatening organ dysfunction caused by a dysregulated host response to infection (Sepsis-3)
Septic shock	Sepsis with persistent hypotension needing vasopressors and lactate > 2 mmol/L despite adequate fluid resuscitation
Maternal sepsis	Sepsis during pregnancy, childbirth, post-abortion or the postpartum period (up to 6 weeks)
Maternity early warning score (MEWS/MEOWS)	Track-and-trigger chart adjusted for pregnancy physiology (NHS England national MEWS)
Sepsis Six	Six interventions within 1 hour: oxygen, blood cultures, IV antibiotics, IV fluids, lactate, urine output monitoring
iGAS	Invasive group A streptococcal infection — can cause streptococcal toxic shock syndrome (STSS)

■ IN PLAIN ENGLISH: Maternal sepsis

Pregnant and newly delivered women can look well until they **deteriorate very quickly**. Normal pregnancy changes (faster heart rate, lower BP) can mask sepsis. **Recognise early, treat within the hour, find and control the source.**

483.2 Causes and risk factors

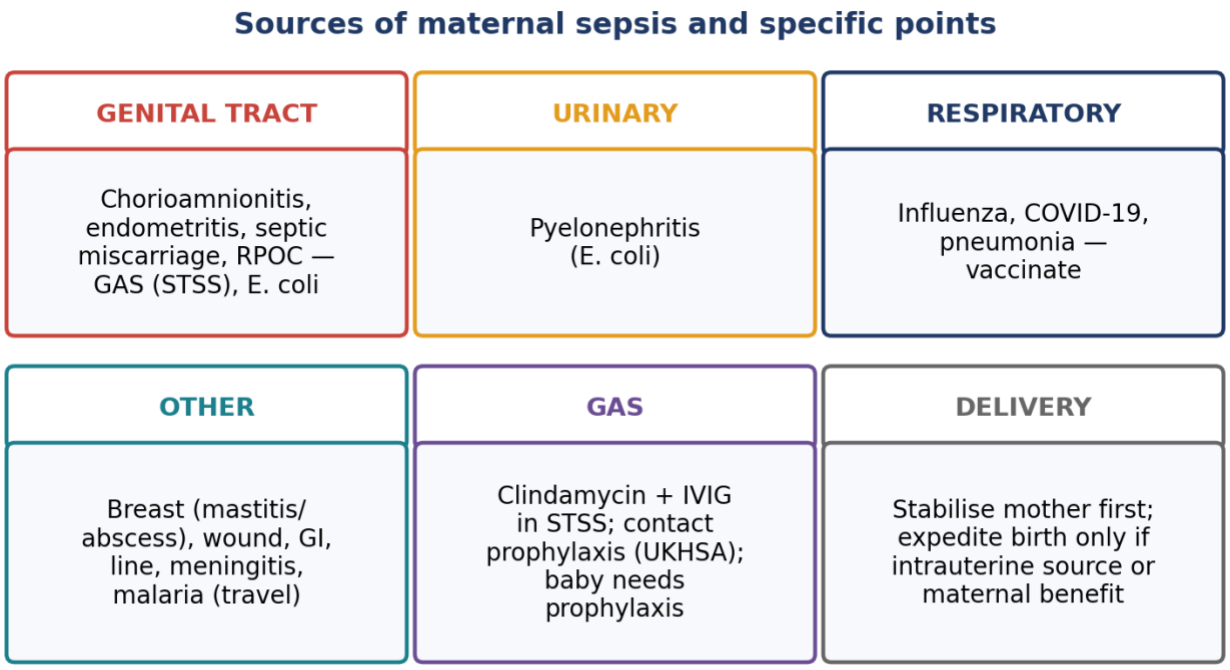


Figure 483.1 — Sources of maternal sepsis

- Risk factors: obesity, diabetes, immunosuppression, anaemia
  - Invasive procedures (amniocentesis, cerclage)
  - Prolonged ruptured membranes, retained products
  - CS (especially emergency)
  - Operative vaginal birth, wound haematoma
  - Close contact with GAS infection (e.g. children with sore throat/scarlet fever)
  - Minority ethnic groups, deprivation.
- Commonest organisms: E. coli, group A and group B streptococcus, Staphylococcus aureus, influenza and COVID-19 (MBRRACE-UK).

483.3 Recognition and immediate management

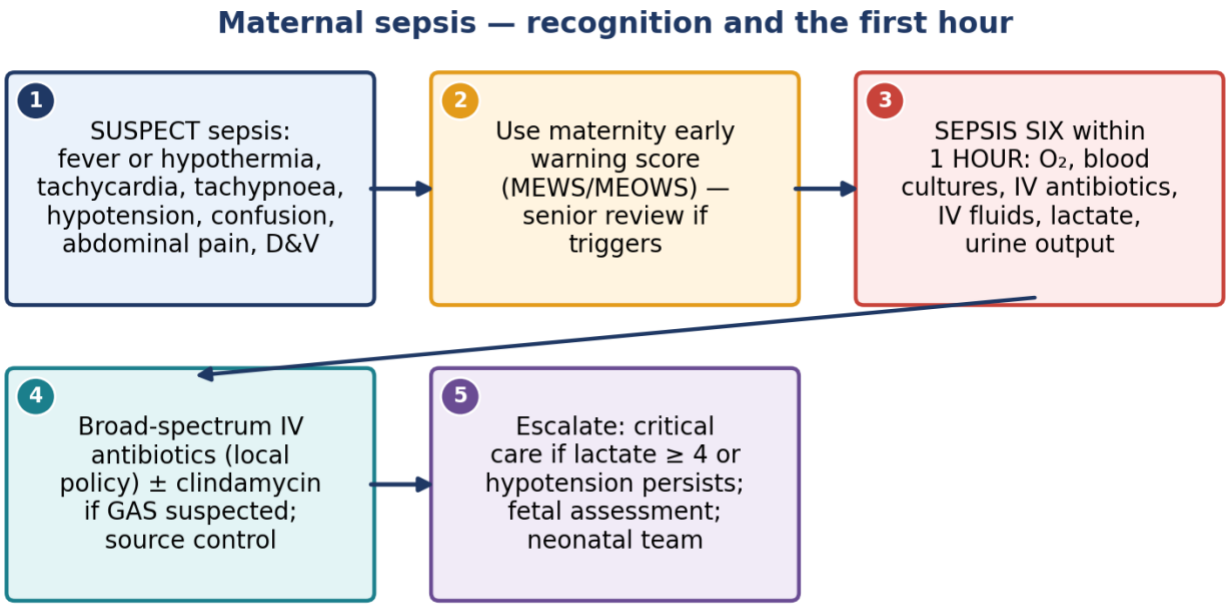


Figure 483.2 — Recognition and first hour

Element	Details
Red flags	• Temperature > 38 °C or < 36 °C • HR > 100 (> 120 red flag) • RR > 20 (> 25 red flag), SBP < 90, new confusion, SpO_2 < 95%, oliguria, lactate ≥ 2 • Non-blanching rash • Severe abdominal pain • Diarrhoea/vomiting (GAS)
Investigations	• Blood cultures (before antibiotics, without delaying them), FBC, CRP, U&E, LFT, coagulation, lactate, glucose • Urine, HVS, wound/throat swabs, sputum, viral swabs • Imaging as indicated (CXR, USS, CT)
Antibiotics	• IV broad-spectrum within 1 hour per local policy (e.g. piperacillin–tazobactam or a carbapenem ± gentamicin) • ADD CLINDAMYCIN if GAS/toxic shock suspected (suppresses toxin) • IVIG in severe iGAS (specialist)
Fluids	• Crystalloid boluses (e.g. 500 mL) with reassessment • Vasopressors in critical care if hypotension persists
Source control	Remove RPOC, drain abscess, debride necrotising fasciitis, deliver if intrauterine infection (chorioamnionitis)
Escalation	• Senior obstetrician + anaesthetist • Critical care outreach/ICU if lactate ≥ 4, persistent hypotension or organ dysfunction
VTE	Thromboprophylaxis once stable (sepsis ↑ VTE risk)

483.4 Pregnancy-specific considerations

- **Fetus**: CTG (fetal tachycardia may reflect maternal fever/infection)
  - Stabilise the mother first — maternal resuscitation is the best fetal resuscitation
  - Steroids if preterm birth likely

  - Inform neonatal team (neonatal antibiotics).
- **Timing of birth**: deliver if the source is intrauterine or birth will aid maternal resuscitation
  - Avoid regional anaesthesia in coagulopathy/septic shock.
- **GAS**: inform UKHSA; antibiotic prophylaxis for the baby and close household contacts (per UKHSA guidance); isolate in a side room.
- Postpartum education: signs of infection and hygiene (hand washing, perineal care).

■ COMMON PITFALLS

Attributing tachycardia/fever to labour or epidural.

Delaying antibiotics for investigations.

Omitting clindamycin when GAS is suspected.

Expediting birth in an unstable mother when the source is not uterine.

483.5 Must-know summary

■ EXAM TIP

- Sepsis = organ dysfunction from a dysregulated response to infection; maternal sepsis up to 6 weeks postpartum.
- Use a maternity early warning score; red flags: HR > 120, RR > 25, SBP < 90, confusion, lactate ≥ 2.
- Sepsis Six within 1 hour; broad-spectrum antibiotics + clindamycin if GAS; source control; escalate early.
- Stabilise mother before birth unless the source is intrauterine; GAS — UKHSA, prophylaxis for baby/contacts.

■ MNEMONIC / MEMORY AID

Sepsis Six — 'BUFALO': Blood cultures, Urine output, Fluids, Antibiotics, Lactate, Oxygen.