



MRCOG Part 1

**SAMPLE
SLIDES**

Last Minute Revision Course

**25th June
2023**

Ensure your revision is complete!



www.DoctorJakes.com/mrcog1



Kidney

NSAIDs = Constrict afferent renal arteriole

ACEi = Relax efferent renal arteriole

Loop diuretics = Act on the Na-K-Cl co-transport in the loop of Henle

Thiazide = Act on the Na-K transporter in the DCT

Aldosterone = Act on the DCT + Collecting ducts

ADH = Collecting ducts

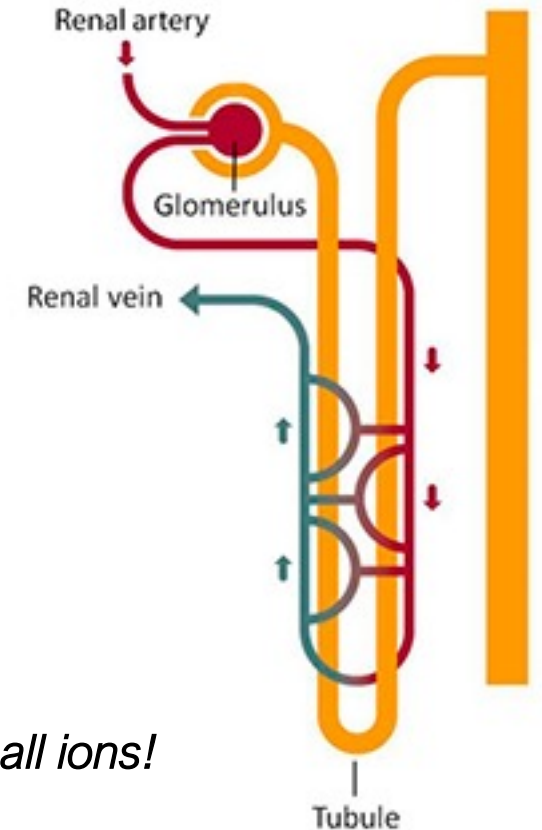
Remember PCT is the main site for reabsorption for all ions!

Changes in pregnancy

- Kidney size increases (~2cm)
- Glomerular filtration rate increases by 50%
- Renal blood flow increases by 80%
- Serum creatinine falls by 35 $\mu\text{mol/L}$ (average creatinine in pregnancy is 53 $\mu\text{mol/L}$)

AKI in pregnancy Cr $>90 \mu\text{mol/L}$

The Nephron

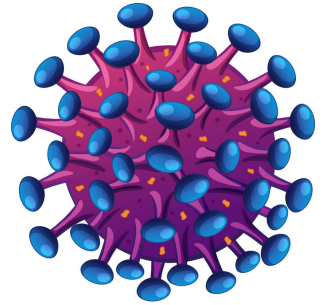


Uterotonic drugs

Tranexamic acid

- Antifibrinolytic agent
- If given <3hr of delivery, decreases life-threatening bleeding by 36%

Drug	Mechanism of action	Notes
Oxytocin	Stimulates oxytocin receptor	IM 10IU for vaginal birth IV 5IU for caesarean section
Ergometrine	Ergot Alkaloid	IM/IV 500mcg Contraindicated in cardiac disease Nausea, vomiting, Increase in BP
<i>Syntometrine (Combination of oxytocin and ergometrine) 500mcg / 5IU</i>		
Carboprost	Synthetic prostaglandin PGF _{2α} analogue	250mcg, repeat every 15min. Total 2mg. S/E include chills, diarrhoea, headache Contraindicated in cardiac/respiratory disease
Misoprostol	Synthetic Prostaglandin E ₁ analogue	800mcg, PR Diarrhoea, fever



HIV

Start cART:

- First trimester if VL >100,000 or CD₄ <200
- Second trimester (before 24 weeks)

SROM >34/40 = Aim for delivery within 24 hours

Delivery - Check viral load at 36 weeks

- <50 = Vaginal delivery
- 50-399 = Consider ELCS
- >400 = ELCS

IV Zidovudine = VL > 1000/unknown or untreated and in labour

All babies require a course of ART

cART:

- Tenofovir DF or Abacavir
- Emtricitabine or Lamivudine
- Efavirenz or Atazanavir

Zidovudine only:

- Declined cART
- VL <10,000
- Will have caesarean

**Invasive testing and ECV
only if VL <50**

Trisomy screening

Raised AFP

- Spina bifida
- Anencephaly
- Omphalocele
- Gastroschisis
- Twins

Detection rate = 85%

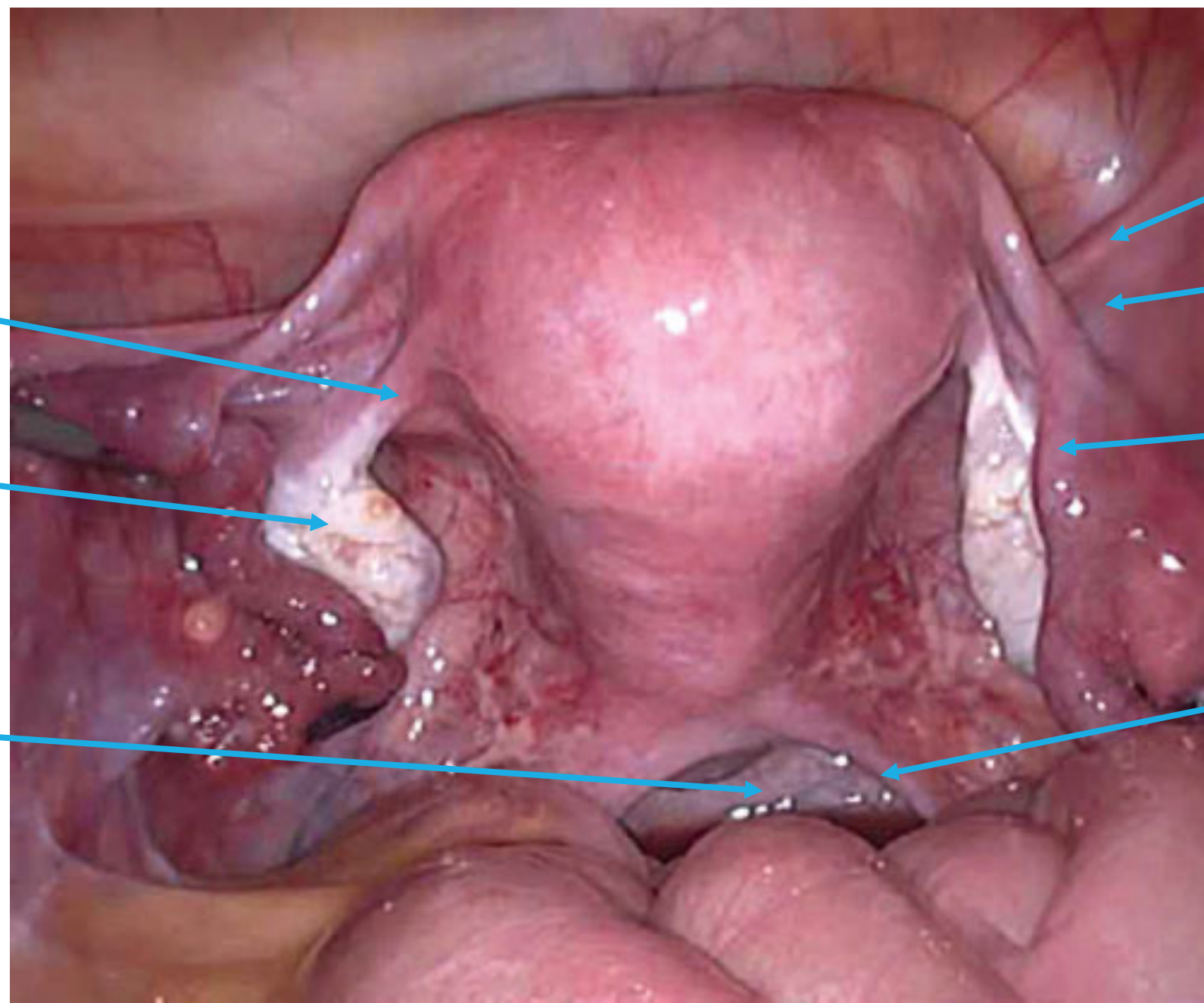
False positive rate = 5%

			Patau (T13)	Edwards' (T15)	Down's (T21)
Quadruple Test (14-20 weeks) <u>Down's syndrome only</u>	Combined Test + maternal age (11-13 ⁺⁶ weeks)	Nuchal translucency	Increased	Increased	Increased
		PAPP-A	Decreased	Decreased	Decreased
		B-HCG	Decreased	Decreased	Increased
	Triple Test (15-20 weeks) <u>Down's syndrome only</u>	AFP	Normal	Decreased	Decreased
		Unconjugated oestriol	Normal	Decreased	Decreased
		Inhibin A	Normal	Normal	Increased

Ovarian
ligament

Ovary

Recto-uterine pouch
(Pouch of Douglas)

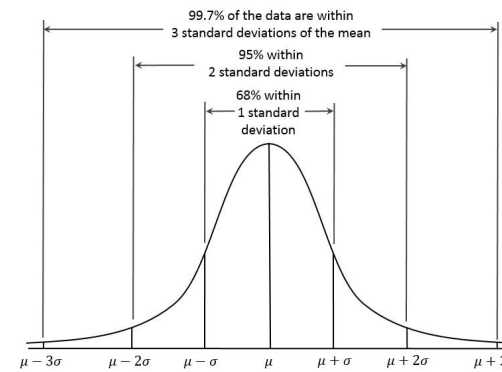


Round
ligament

Broad
ligament

Fallopian
tube

Utero-sacral
ligament



*Remember the rule:
68 - 95 - 99.7*

Standard deviation

A measure of the spread or dispersion of a set of observations from the mean value.

1 SD from the mean

Incorporates 68% of the total data points (34% below the mean and 34% above the mean)

2 SD from the mean

Incorporate 95% of the total data points (47.5% below the mean and 47.5% above the mean)

3 SD from the mean

Incorporate 99.7% of the total data points (49.85% below the mean and 49.85% above the mean)

CTG interpretation

FOUR parameters

- Contractions
- Baseline rate
- Variability
- Decelerations

Each can be classified as:

- *White*
- **Amber**
- **Red**

NORMAL

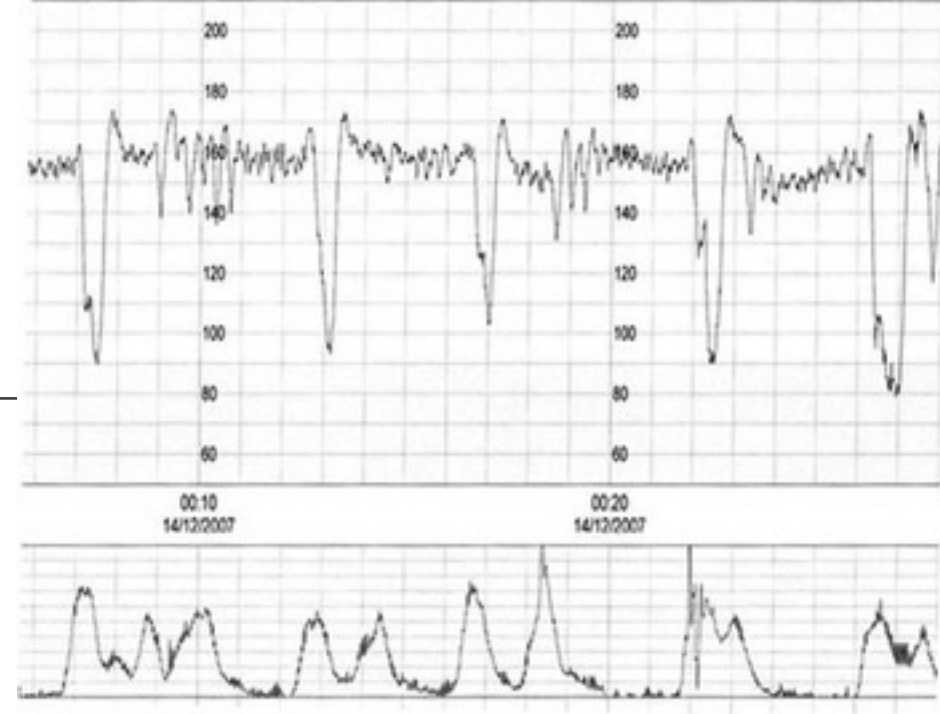
= All 4 parameters are WHITE

SUSPICIOUS

= One **AMBER** category but the remaining are WHITE

PATHOLOGICAL

= Two or more **AMBER** or one or more **RED**



NEW

NICE Clinical guideline [NG229]: Fetal monitoring in labour (2022)



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**BOOK
NOW**

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