



## TRAUMA IN PREGNANCY

# Placental abruption

## Structured assessment

### 1 Perform a primary survey

[https://www.health.qld.gov.au/\\_\\_data/assets/pdf\\_file/0035/146699/f-trauma-initial.pdf](https://www.health.qld.gov.au/__data/assets/pdf_file/0035/146699/f-trauma-initial.pdf)

Scan to view the Queensland Clinical Guideline >



### 2 Perform fetal assessment

Obtain  
obstetric  
history.



Obtain  
estimation of  
gestational age.



Perform FHR monitoring

- over 23 weeks, initiate CTG
- normal value 110-160 bpm.

### 3 Perform a secondary survey

[https://www.health.qld.gov.au/\\_\\_data/assets/pdf\\_file/0033/145599/f-trauma-second.pdf](https://www.health.qld.gov.au/__data/assets/pdf_file/0033/145599/f-trauma-second.pdf)

Scan to view the Queensland Clinical Guideline >



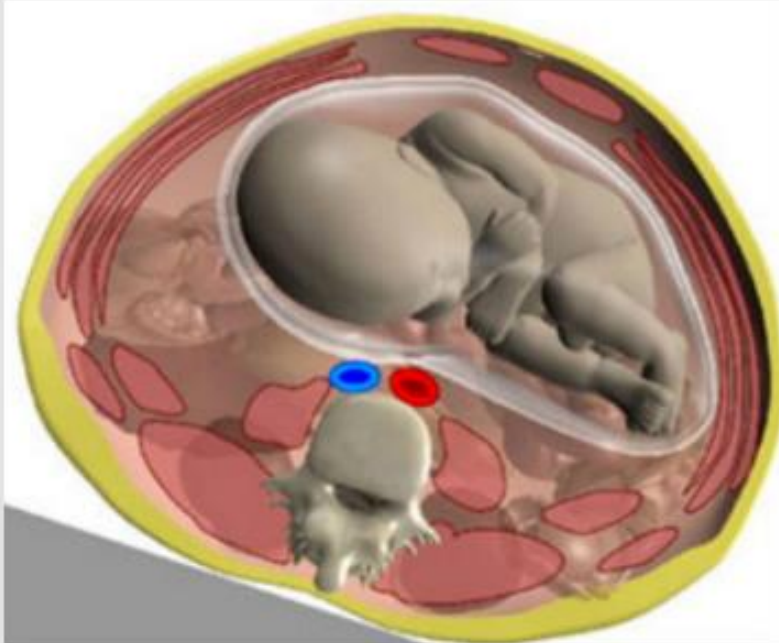
# Specific management

## Manual displacement

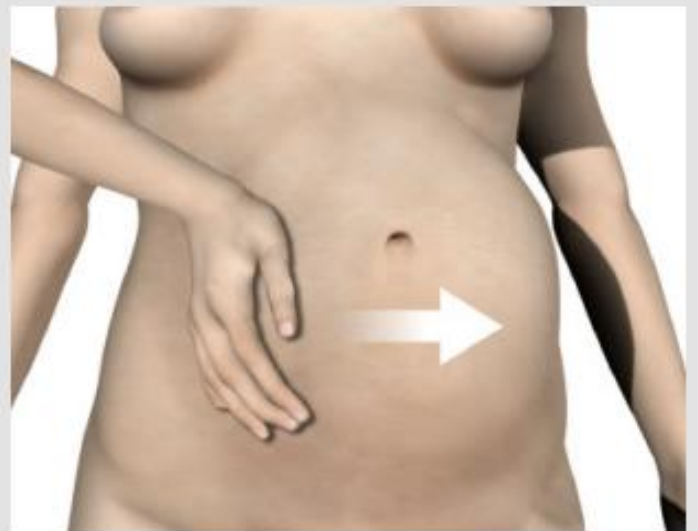
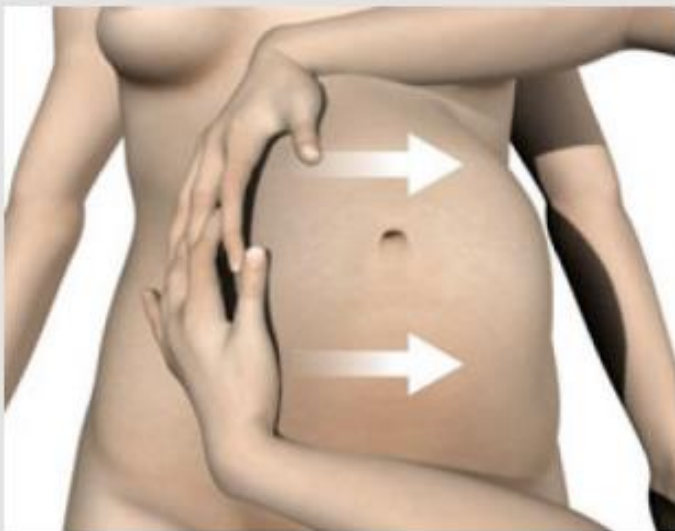
In the supine position the gravid uterus compresses the inferior vena cava and impairs venous return and reduces cardiac output.

Compression is relieved by either:

### a. Left lateral tilt.



### b. Manual uterus displacement — preferred position for cardiac compressions.



*Images produced by: Clinical Multimedia Unit  
Metro North Hospital and Health Service, Queensland.*

# Pre-simulation Briefing

Establishing a safe container for learning in simulation.



## 1 Clarify objectives, roles and expectations

- Introductions.
- Learning objectives.
- Assessment (formative vs summative).
- Facilitators and learners' roles.
- Active participants vs observers.

## 2 Maintain confidentiality and respect

- Transparency on who will observe.
- Individual performances.
- Maintain curiosity.

## 3 Establish a fiction contract

- Seek a voluntary commitment between the learner and facilitator.
- Ask for buy-in.
  - Acknowledge limitations.

## 4 Conduct a familiarisation

- Manikin/simulated patient.
- Simulated environment.
- Calling for help.

## 5 Address simulation safety

- Identify risks.
- Medications and equipment.
  - Electrical or physical hazards.
  - Simulated and real patients.

**Note:** Adjust the pre-simulation briefing to match the demands of the simulation event, contexts or the changing of participant composition.

Adapted from Rudolph, J., Raemer, D. and Simon, R. (2014). Establishing a Safe Container for Learning in Simulation. *Simulation in Healthcare: Journal of the Society for Simulation in Healthcare*, 9(6), pp.339-349.



USS anterior placenta

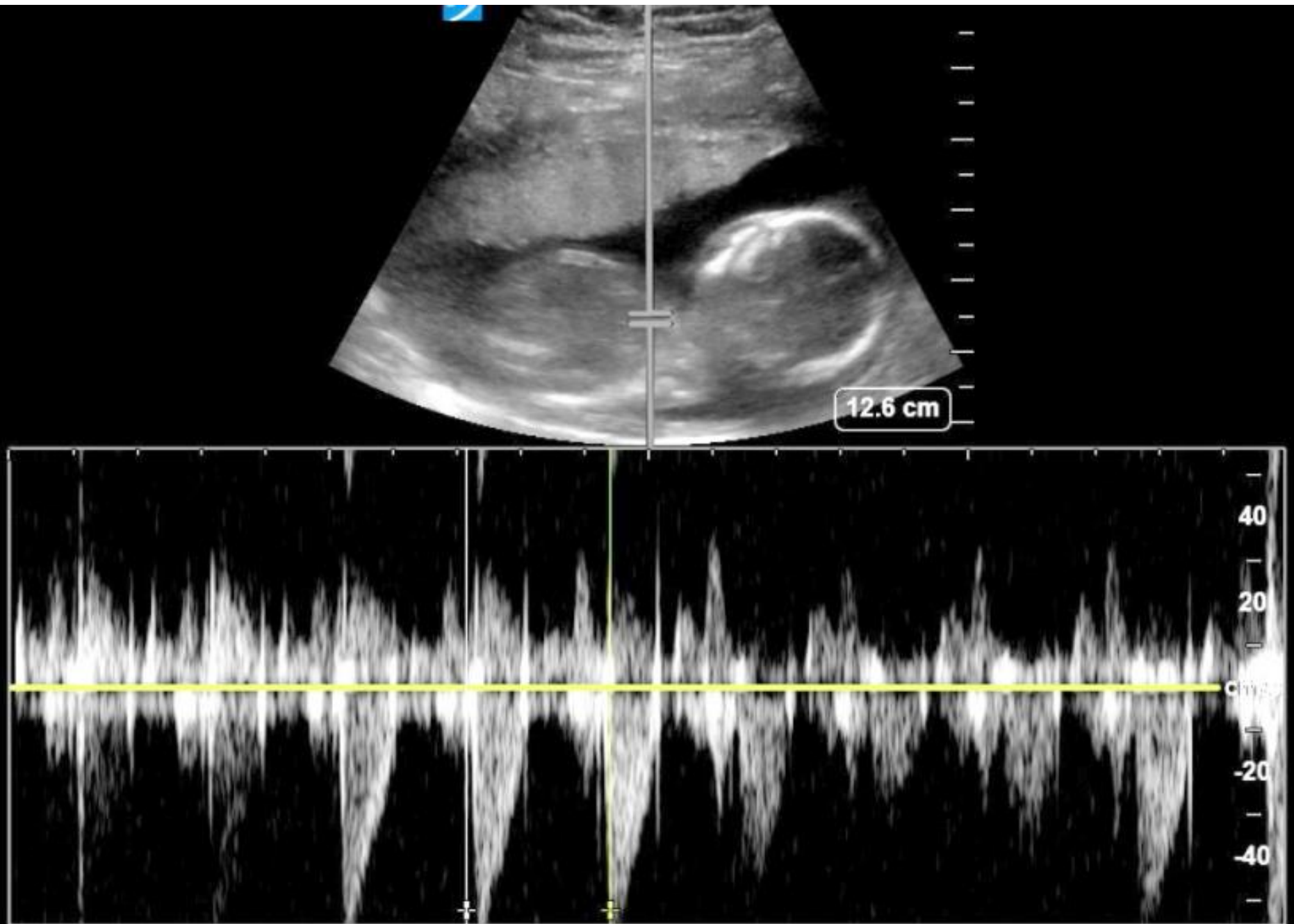


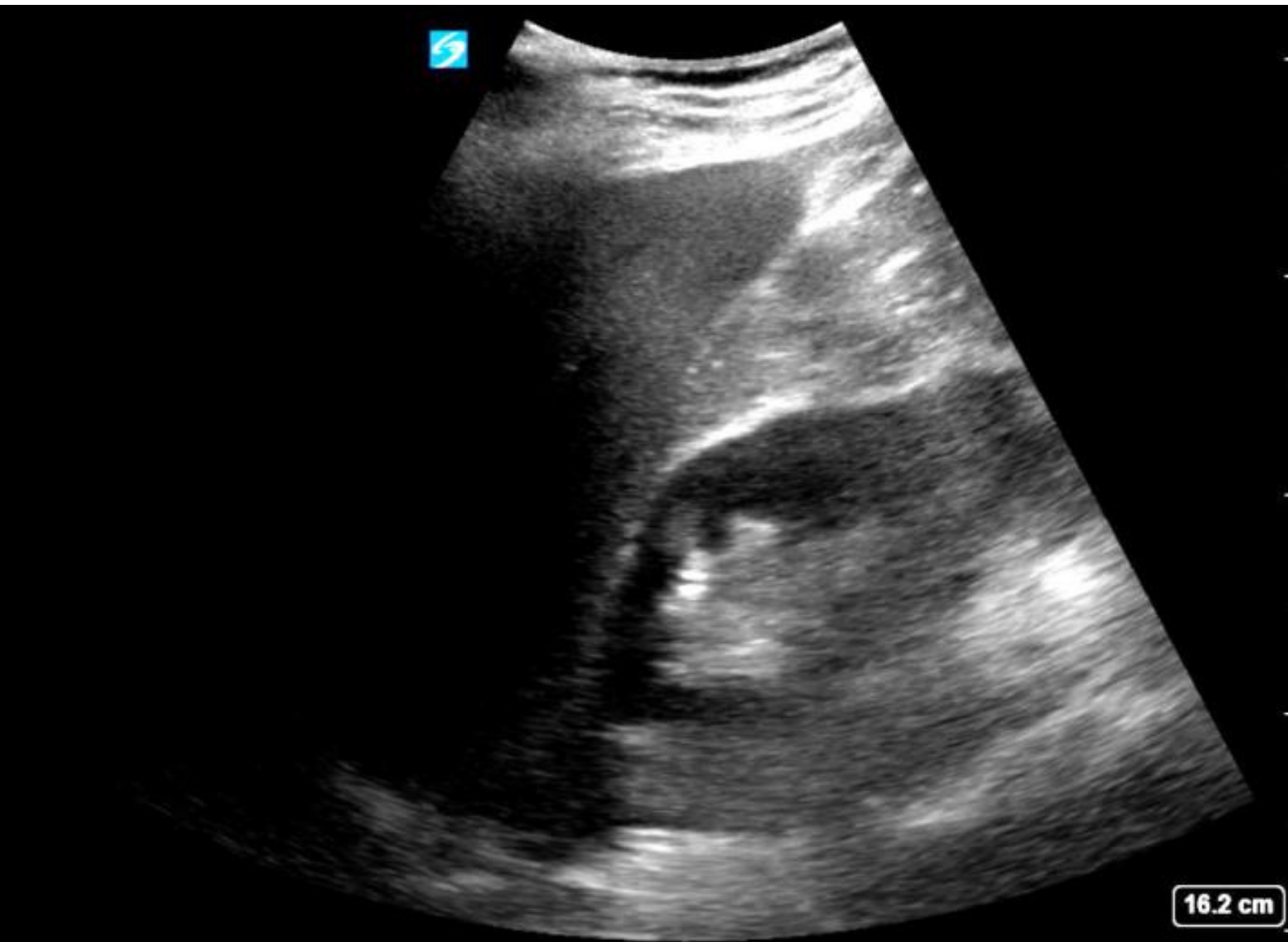
Pelvic X-ray



# Doppler Waveforms

HR 133bpm





16.2 cm

**SonoSite**  
C60xp/5-2 Abdomen  
MI: 0.9 TIS: 0.2

2D: G: 50  
Gen DR: 0  
MB  
THI ↗



16.2 cm

**SonoSite**  
C60xp/5-2 Abdomen  
MI: 0.9 TIS: 0.2

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# Kleihauer results

## FOETO-MATERNAL HAEMORRHAGE SCREEN

Kleihauer : PENDING

:  
:

Anti-D required : vials

Maternal Blood Gp : O Rh(D) NEGATIVE

Cord Blood Group : Labnumber :

### Comment:

In relation to detection of foetal blood loss (reduced foetal movements, trauma, abruption). Kleihauer results should be interpreted with caution and taking into account clinical findings. Overestimation and underestimation of

## Recommended Anti-D

Dosage Guidelines for Prevention of Rh(D) Haemolytic Disease of the Newborn for patients without Immune Anti-D.

Sensitising events in the 1st trimester - 250 IU CSL Rh(D) Ig

Sensitising events beyond the 1st trimester - 625 IU CSL Rh(D) Ig

Pregnancy

28 and 34 weeks - 625 IU CSL Rh(D) Ig

Post partum - 625 IU CSL Rh(D) Ig

TO CALCULATE VIALS REQUIRED:

\* One vial of 625IU CSL Rh(D) Immunoglobulin is sufficient to prevent

immunisation by a foetomaternal haemorrhage of 6ml of Rh(D) POSITIVE red cells.

\* Rh(D) immunoglobulin should be administered within 72hrs of the sensitising event, however a dose given up to 10 days after the event may provide protection.

\* For large volume bleeds (>12ml), Rhophylac immunoglobulin administered intravenously is the product of choice. One syringe (2ml) Rhophylac 1500IU will suppress the immunising potential of up to 15mL of Rh(D) POSITIVE red cells

## Group and antibody screen

Transfusion Medicine - Group and Antibody Screen

Blood Group: O Rh(D) NEGATIVE

Antibody Screen: Passive NEGATIVE

Sample Expires: 15:30 15-Oct-19

### Comments:

Clinical information available indicates administration of Rh D-Ig at 34 weeks. These results suggest that the anti D detected may be passive in nature. However the possibility of an early immune response cannot be excluded by serology alone.

# Full blood count

Diff: Automated Specimen: Blood

Hgb : 121 WBC : 11.0

PLT : 194 :

RBC : 3.84 HCT : 0.36

MCV : 93 MCH : 31.5

RDW : MCHC :

Press shift-insert to view reference ranges

Neut ( 83 %): 9.16

Lymph ( 11 %): 1.18

Mono ( 6 %): 0.62

Eosin ( 0 %): 0.01

Baso ( 0 %): 0.03

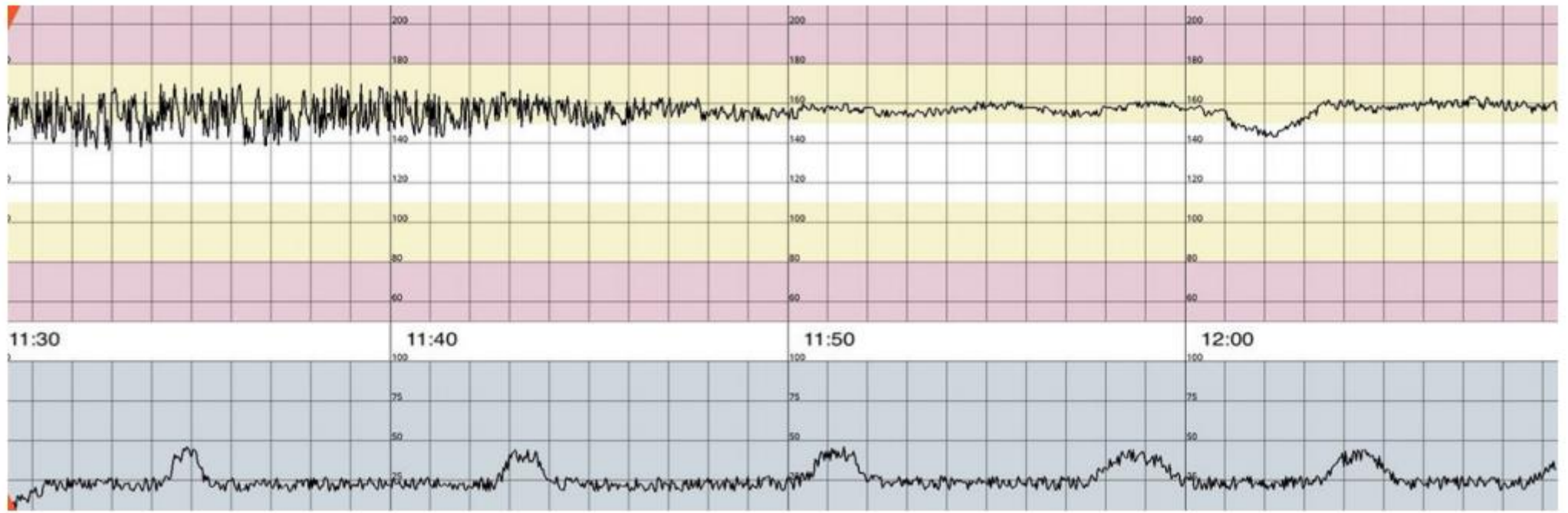
NRBC /100 WBC

SusFlg

Comment: Patient Age: 27 years Val: sys

Specimen type	Blood	Urate	0.30	mmol/L (0.10 - 0.36)	Phosphate	1.55 H	mmol/L (0.75 - 1.50)
Sample Appearance	Clear	Protein	61	g/L (61 - 75)	Lipase	34	U/L (< 60)
Sodium	135 L	Albumin	30 L	g/L (33 - 40)	Magnesium	0.76	mmol/L (0.70 - 1.10)
Potassium	4.4	Globulin	31	g/L (25 - 45)	OSM(Calc)	283	mmol/L (270 - 290)
Chloride	103	Bilirubin	10	umol/L (< 20)	CHEM 20 PROFILE		
Bicarb.	21	Bili(Conj)	< 4	umol/L (< 4)	Press Shift F1 for more information on		
Anion Gap	11	ALP	183	U/L (40 - 220)	Osmolality calculation		
Glucose	4.0	Gamma GT	8	U/L (< 38)			
Fasting RR	-->	ALT	22	U/L (< 34)			
Urea	3.9	AST	27	U/L (< 31)			
Creatinine	74 H	LD	206	U/L (120 - 250)			
Urea/Creat.	53	Calcium	2.28	mmol/L (2.10 - 2.60)			
eGFR	>90	Corr Ca	2.47	mmol/L (2.10 - 2.60)			
	1.73m <sup>2</sup>						
Comment:	Age:27 years I	H	L	KC			

# CTG 1 – on admission



# CTG 2 – 30 minutes post admission

