

Blood results



Breakout session

- Aim- to get you to consider clinical picture and blood results that support your history taking
- Understand the interpretation
- Ensure if you are unsure of the significance of a deranged blood result you look up/ ask about the significance of this

Case One

- Clinical Picture:
- Lucy is 34 week Primip
- Admitted to MDAU with reduced fetal movements, feeling unwell
- Noted to have oedema on admission and 1+ protein on urinalysis

- BP 164/90 on admission to PET bloods taken
- Blood results:
- Consider do you know normal range?

	34 weeks (community)	MDAU admission
Hb	113g/l	117g/l
PLT	158	128
Urea	3.0	4.5
Creatinine	63	70
Urates	340	400
ALT	-	36
ALP	-	175
Urine PCR	-	105

Kidney and Liver Function

- Urea and Creatinine: Both are a waste product of metabolism and are excreted primarily through the kidneys so when kidney function is reduced secondary to PET there is a rise in the urea and creatinine in the blood, hence a marker of kidney function. They usually increase when kidney function reduced by 80% so will need fluid balance chart started.
- Liver function- ALT is an enzyme found mainly in the liver. It is part of metabolic processes and help transfer amino acids from one molecule to another. Elevated levels signify liver damage and can be acute in onset secondary to inflammation of the liver. ALP is also produced in the liver but signifies obstruction in the liver so associated more with cholestasis.
- PCR- as kidneys become leaky with kidney dysfunction they release protein rather than reabsorb hence getting protein in urine.

Three weeks later

- Management plan in MDAU: review by registrar with thought to stabilise and deliver

	34 weeks (community)	MDAU admission	37 weeks
Hb	113g/l	117g/l	105g/l
PLT	158	128	60
Urea	3.0	4.5	9.0
Creatinine	63	70	115
Urates	340	400	440
ALT	-	36	70
ALP	-	175	300
Urine PCR	-	105	awaited

Discussion points

- Can consider in terms of liver and renal function pre, intra and post organ function
- Pre kidney- things that have occurred prior to the kidney may reduce function (ie PPH)
- Intra kidney- reducing kidney function (PET)
- Post kidney function- blockages that stop it filtering altering it's actions
- Liver:
- Pre- haemolysis-the breakdown of red cells prior to getting to liver
- Intra hepatic- ALT raised signifying liver inflammation
- Post- there is a blockage- if blockage bile salts cannot be excreted into bowel (these usually make stool brown so become lighter and floats)

- Jo is 1 day post LSCS, EBL 1000mls, on FESO4, has been mobilising, feels unwell on ward and feels this is due to tiredness.
- OE A- SV air
- B- RR 22, SpO2- 98% on air
- C- Pulse 108bpm, cap refill 2 seconds and BP 90/68 (normal for her is 110/60) doctors requested repeat of bloods
- D- alert
- E- AES in situ, no rashes, lochia normal- temperature awaited
- Plan to review with blood results- what are you expecting to see based on history?

- Bloods :

	In labour	Day 0 (post PPH)	Day 1 (unwell)
Hb	109 g/l	98g/l	60g/l
Platelets	115	108	140
WBC	13	16	22
Urea	-	N	-
Creatinine	-	N	-
CRP		-	64

Sepsis bloods-

- Significance of CRP- C Reactive Protein- levels raise in blood when a marker of inflammation in the blood- they will raise in acute phase of inflammation and often used alongside lactate when diagnosing sepsis.
- If unwell and potential for ITU care may request procalcitonin levels as more specific marker for sepsis than CRP

- Always consider the bloods in the context of the clinical picture and consider what care may be required from this.