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✓ Phenylketonuria is an inherited disorder due to deficiency of the enzyme

1/1

- Transaminase
- Homogentisate oxidase
- Phenylalanine hydroxylase ✓
- None of the above

✓ Which of the following enzymes is typically elevated in alcoholism? 1/1

Serum ALP

Serum gamma-GT ✓

Serum phosphatase

Serum LDH

✓ Cardiac muscle contains which of the following CK-isoenzymes? 1/1

BB only

MM and BB only

MM, BB and MB

MM and MB only ✓

✓ Serum urea to creatinine ratio is increased in the following metabolic circumstances except: 1/1

- Low protein intake ✓
- G.I haemorrhage
- Hypercatabolic state
- Urinary stasis

✓ Post-renal aetiology of acute kidney injury include: 1/1

- Acute glomerulonephritis
- Intra-renal vasoconstriction
- Renovascular obstruction
- Bilateral ureteric obstruction ✓

✓ During the oliguric phase of acute renal failure, there is: 1/1

- Oliguria
- Rising blood potassium ion levels
- Metabolic acidosis

All the above ✓

✓ Features of chronic renal failure include: 1/1

- Decreased tubular flow
- Polyuria with variable output

Loss of concentrating and diluting abilities ✓

Sodium stability

✘ Clinical features of acromegaly include the following except:

0/1

- Hyperglycaemia ✘
- Hyperlipidaemia
- Hypercalcaemia
- Hypogonadism

Correct answer

- Hypogonadism

✔ Symptoms of hyperprolactinaemia include the following except:

1/1

- Galactorrhoea
- Oligomenorrhoea
- Subfertility
- Increased sperm count ✔



✘ Gonadotropin deficiency in females can present with the following except: .../1

- Vaginal dryness
- Increased libido ✘
- Breast atrophy
- Delayed puberty in children

No correct answers

✔ Aetiology of male hypogonadotropic hypogonadism include the following except: 1/1

- Klinefelter's syndrome
- Testicular agenesis
- Cytotoxic drug therapy

None of the above ✔



✓ In females, high LH and low FSH is suggestive of: 1/1

- Polycystic ovarian syndrome ✓
- Hypergonadotropic hypogonadism
- Infertility due to hyperprolactinaemia
- All the above

✓ Hyperuricaemia can arise from: 1/1

- Overproduction of purine nucleotides
- Decrease in purine salvage pathway
- Underexcretion of uric acid
- All the above ✓

✓ The following factors are associated with the development of gout except: 1/1

- Female gender ✓
- Family history (genetics)
- Obesity
- Increased consumption of alcohol

✓ Signs and symptoms associated with hypothyroidism which develops as a complication of ageing include: 1/1

- Dry skin
- Constipation
- Forgetfulness
- All the above ✓



✓ The liver performs which function 1/1

Synthesis

Detoxification

Storage

All the above ✓

✓ Concerning the formation of bilirubin 1/1

It is derived from the globin part of haemoglobin

Bilirubin is water-soluble

The conjugation of bilirubin occurs in the presence of the enzyme uridyldiphosphate glucuronyl transferase ✓

Unconjugated bilirubin is not bound by albumin

✓ The liver synthesises

1/1

- Proteins
- Lipid
- Carbohydrates
- All the above ✓

✓ Concerning jaundice

1/1

- It is seen in viral hepatitis ✓
- Most rarely classified based on the site of the disorder
- abnormalities outside of the liver are the major causes
- Rotor syndrome is a non-hepatic cause of jaundice

✓ Physiological jaundice

1/1

Has no apparent cause

Can cause cell damage and death, causing irreversible neurological damage



There is no known treatment regime

None of the above

✓ In post hepatic hyperbilirubinemia

1/1

Total bilirubin levels are elevated

Unconjugated bilirubin levels are elevated

All three bilirubin fractions are elevated



Conjugated bilirubin levels are elevated

✓ In parenchymal hepatic failure

1/1

Jaundice is rarely present

Defects of coagulation are common



The plasma albumin levels are within the population reference interval

None of the above

✓ Concerning portal hypertension

1/1

is defined as an absolute increase in portal venous pressure

is a result of an increase in the pressure gradient between the portal vein and the hepatic vein

is caused by an increase in resistance within the sinusoidal or intrahepatic

All the above



✓ Ascites due to hepatic failure 1/1

- Is usually accompanied by splenomegaly
- Individuals with ascites have pulmonary complications of portal hypertension
- Is associated with poor prognosis and end-stage consequence of fulminant hepatic failure
- All the above ✓

✓ Effects of vitamin D 1/1

- 1,25(OH)<sub>2</sub>D also decreases active phosphate transport through stimulation of the expression of the Na-Pi cotransporter.
- In bone, 1,25(OH)<sub>2</sub>D limits terminal differentiation of osteoclast precursors to osteoclasts.
- 1,25(OH)<sub>2</sub>D downregulates PTH gene expression in the parathyroids ✓



✓ Effects of PTH

1/1

- Decreases the reabsorption of renal tubular calcium
- Drives 1-hydroxylation of 25-hydroxy vitamin D ✓
- limits intestinal absorption of calcium
- PTH usually exerts its effects on cells via a receptor tyrosine kinase

✓ Concerning hypercalcaemia 1/1

- Secondary hypercalcaemia is the most common disease variation
- Maybe as a result of tumours ✓
- In primary hyperparathyroidism, PTH is usually low
- Affected individuals may develop hyperphosphatemia



Considerations for  
therapeutic drug monitoring  
include

1/1



Distribution of drugs within the  
body



Rate of absorption



The route of administration,



All the above





## Concerning the elimination of drugs

1/1



Changes in hepatic physiology affect the rate of drug elimination



This occurs primarily via renal filtration as most drugs readily excreted by the kidneys



Decreases in glomerular filtration rate directly result in decreased serum half-life and concentration



Drugs are clearance of drugs from the body occur as a second-order process



## On pharmacogenomics

1/1



These differences only occur in genes that encode the cytochrome P450 enzymes



Information cannot be used to personalize drug doses to the degree that is appropriate for the CYP450 profile of the patient



Genetic variants of enzymes cause the differences in rates of drug metabolism over a population



None of the above