

Paediatrics - Paper II

Date: 12.07.2023 Time: 03 hours

Question Number 01

You are called to attend an emergency cesarian section in a mother with a gestational age of 30 weeks and the pregnancy was complicated with gestational diabetes and preeclampsia. The baby cried at birth and the birth weight is 1200 grams and transferred to NICU for further management.

| 1.1. At th | (05 marks) | |
|---------------|--|-----------------------|
| 1.1.2. | Mention one investigation that you will request to support your dia indicating the expected finding | agnosis (10 marks) |
| 1.2.List fiv | ve (5) early neonatal complications the baby can develop in the NIC | (20 marks) |
| days and wear | managed with ventilatory support for respiratory distress in the NI ned to nasal prong oxygen. He tolerated expressed breast milk 5ml 2 life the baby developed greenish vomiting and abdominal distention | 2 hourly. On |
| · | s the most likely diagnosis for this presentation | (10 marks) |

| 1.3.1. List four (4) investigations you will request at this stage to support | your |
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| diagnosis indicating the expected findings | (20 marks) |
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| 1.4. After completion of 28 days in the neonatal unit, the baby is ready for dis | charge. |
| Outline the discharge plan for this baby | (20 marks) |
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| 1.5.List five (5) late complications that the baby can develop. | (15 marks) |
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Question No 02

A 6-year-old boy is admitted with vomiting and abdominal pain of one day duration. The boy had a high fever and was given 375mg of paracetamol 6 hourly. There was a tender hepatomegaly of 3cm. The weight of the child was 22kg.

The Investigations are given below:

| Hb | 11.6g/dl | (9-11) |
|-----------|-----------------------|-----------|
| WCC | $7.2 \times 10^9 / L$ | (4-11) |
| Platelets | $320x10^6$ | (250-430) |
| CRP | 3.5mg/L | (<6) |
| AST | 56U/L | (<40) |
| ALT | 46U/L | (<40) |
| Sodium | 135mmol/L | |
| Potassium | 4.5mmol/L | |

| 2.1. List three (3) Differential diagnosis | (15 Marks) |
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On day 3 of admission the child deteriorated and became drowsy following an episode of haemetemesis. He developed jaundice and examination of the abdomen revealed free fluid.

Blood investigations done on day 3 are given below:

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|-----------|-----------|-------|
| AST | 1200U/L | (<40) |
| ALT | 985U/L | (<40) |
| Sodium | 135mmol/L | |
| Potassium | 3.1mmol/L | |

2.2. Name the complication the child has developed on day 3 (15 Marks)

| 2.3. Mention three (3) factors that may have precipitated the complication (15 Ma | |
|--|------------|
| 2.4. List five (5) other investigations you will perform to support the diagnosis | (15 Marks) |
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| 2.5. List ten (10) steps in the management of this child on day 3 | |
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| Question Number 03 | |
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| Studies indicate acute kidney injuries are observed in one-quarter of the hospitaliz | ed children |
| 3.1.Define Acute kidney injury | (10 marks) |
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| 3.2.List five (5) common causes of intrinsic renal conditions leading to acute kidne | (20 Marks) |
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| 3.3.List three (3) investigations you will request to differentiate pre-renal injury ar renal disease causing acute kidney injury. Indicate your expected findings | nd intrinsic (15 Marks) |
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| 3.4. The basic investigations revealed a serum potassium (K) level of 6.5 mEq/L | |
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| Outline the steps in the management of this child | (15 marks) |
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| 3.5.Mention the dietary advice you will give to this child during the acute stage | (10 marks) |
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| 3.6.Outline the principles in the management of acute renal failure | (30 marks) |
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| a | nection | Number | 4 |
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A 6-year-old girl presented to the clinic with a history of recurrent cough of 6 months duration. She gets a cough nearly 3-4 days a week, and the symptoms are worse at night. She needed nebulisation monthly and she is having sleep disturbance 4-5 days a month. Apart from theses symptoms she is therwise well and her growth is adequate.

| 4.1. Mention the complete diagnosis of this child | (10 marks) |
|---|------------|
| 4.2.Outline the management plan you will initiate in the clinic for this child. | (15 marks) |
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| 4.3. She was followed up in the clinic for 2 months on regular medications. The s diary revealed monthly symptoms of cough and difficulty in breathing of 8-10 during the daytime and sleep disturbance of 2 days in a month. | • • |
| 4.3.1. Indicate the current state of her condition by giving reasons | (10 marks) |
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| How will you evaluate this child in the clinic at this point for the issue i 4.3.1 | dentified in (20marks) |
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| wo weeks later the child presented with cough and wheezing of 2 days durmission, the child was diagnosed with acute severe attack of asthma. Mention the clinical features you will expect in this child at the presentation. | |
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| She was commenced on back-to-back nebulisation with oxygen and the symptoms remained the same. | clinical |
| Outline the management plan at this point. | (30 marks) |
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| | 4.3.1 wo weeks later the child presented with cough and wheezing of 2 days durmission, the child was diagnosed with acute severe attack of asthma. Mention the clinical features you will expect in this child at the presenta |



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Question No 05

An 8-year-old girl is admitted with fever with pain and swelling of left knee joint of 3 days duration. She gives a history of having pain and swelling of right ankle joint 5 days ago which resolved spontaneously.

| which resolved spont | aneously. | | |
|------------------------|-----------------------|--|-------------------|
| 5.1. What further info | rmation will y | ou obtain in the history to arrive at the diagr | nosis? (15 Marks) |
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| On examination she | was febrile, an | d the right knee was swollen, red and warm | to touch. |
| | | findings that you will look to arrive at a dia | |
| | | | (15 Marks) |
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| Blood investigations | and the results | s are given below: | |
| Hb | 10.6g/dl | (9-11) | |
| WCC | $7.2 \times 10^9 / L$ | | |
| Platelets | | (250-430) | |
| ESR | 100mm in the | e 1 st hour | |
| 5.3. What is the most | likely diagnosi | is? | (10 Marks) |
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| 5.4. List three (3) investigations you will perform to confirm the diagnosis | (15 Marks) |
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| 5.5.List five (5) steps in the management of the most likely diagnosis mentioned | |
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| 5.6. List three (3) important information that you will give at discharge | (15 Marks) |
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Question No 06

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| Question 110 00 | |
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| An 8-year-old girl was referred from the school medical inspection for short status feels tired, and mother has noticed that she opens bowels once in 4days. She was with a birthweight of 2.2kg. Her weight was 30kg (+2SD) Height was 110cm (<- | born at term |
| 6.1.Calculate her Body Mass Index (BMI) | (10 Marks) |
| | |
| 6.2.List five (5) features in the examination that you will look in this child to sup diagnosis. | oport the (20 Marks) |
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| List three (3) possible differential diagnosis | (15 Marks) |
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6.3.Investigations were performed and the bone age was reported as compatible with 5 years.

| 6.4.List five (5) Important steps in the management | (30 Marks) |
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| 6.5.List five (5) key information that you will give at discharge. | (25 Marks) |
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