

UNIVERSITY OF GHANA MEDICAL SCHOOL



JUNIOR CLERKSHIP EXAMS

CLASS OF 2014 - GROUP A

CHILD HEALTH THEORY

17th December, 2012

Time: **1.5 hours for Sections A & B**

Section A

(Answers in excess of what is indicated will not be marked)

A six month old infant is rushed to the Emergency Room with difficulty in breathing and cough.

- | | |
|--|-----------------|
| a. List 5 differential diagnoses | 3 marks |
| b. Discuss any 3 of the differential diagnoses listed above (clinical features and investigation results). | 12 marks |
| Total | 15 marks |

JUNIOR CLERKSHIP EXAMS

CLASS OF 2014 - GROUP A

CHILD HEALTH THEORY

17th December, 2012

Time: **1.5 hours for Sections A & B**

Section A

MARK SCHEME

Maximum 15 marks

a. Any 5

maximum 3 marks

Bronchiolitis

$\frac{1}{2}$

Pulmonary TB

$\frac{1}{2}$

Bronchopneumonia

$\frac{1}{2}$

Heart failure

1

Aspiration pneumonia

$\frac{1}{2}$

Other relevant

$\frac{1}{2}$

Pneumocystis pneumonia

$\frac{1}{2}$

b. Student should discuss any **3** of those listed in "a". *Maximum 12 marks*

4 marks for each differential diagnosis

-relevant clinical features i.e. history & physical exam – 3 marks

-relevant investigation results – 1 mark

UNIVERSITY OF GHANA MEDICAL SCHOOL



JUNIOR CLERKSHIP EXAMS

CLASS OF 2014 - GROUP B

CHILD HEALTH THEORY

25th February, 2013

Time: **1.5 hours for Sections A & B**

Section A

(Answers in excess of what is indicated will not be marked)

You are called to see an hour old newborn with tachypnoea and grunting.

- a. List 5 possible causes. **2.5 marks**
- b. List 5 points of diagnostic importance in the history and discuss the relevance of 3 of them. **8.5 marks**
- c. List 4 investigations which would help in the management of the infant. **4 marks**

JUNIOR CLERKSHIP EXAMS

CLASS OF 2014 - GROUP B

ANSWER SCHEME

- a. **½ mark for each (max 2.5)**
Surfactant deficiency
Transient tachypnoea of the newborn
Congenital pneumonia
Neonatal septicemia
Meconium aspiration
- b. **½ mark for each listed; 2 marks for each of the 3 discussed (max 8.5)**
Gestation at birth/ preterm delivery
Mode of delivery/ caesarean section in term infant
Prolonged rupture of membranes
Fever
Meconium stained liquor
Fetal distress
Other relevant
- c. **1 mark for each (max 4)**
Chest Xray
Pulse oximetry
Blood gas
Blood glucose
Full blood count
Blood culture
Lumbar puncture



JUNIOR CLERKSHIP EXAMS

CLASS OF 2014 - GROUP C

CHILD HEALTH THEORY

22nd April, 2013

Time: **1.5 hours for Sections A & B**

Section A

(Answers in excess of what is indicated will not be marked)

Ama, a five year old girl, is brought to the clinic by her parents with a six-day history of a swollen face.

- a. List 5 **distinct** areas in the history which would be very helpful in formulating a differential diagnosis. **2.5 marks**
- b. Elaborate upon the importance of 2 of the areas listed above. **8 marks**
- c. List 3 differential diagnoses **1.5 marks**
- d. Discuss 3 laboratory investigations which would help to distinguish between the differential diagnoses listed. **3 marks**

JUNIOR CLERKSHIP EXAMS

CLASS OF 2014 - GROUP C

CHILD HEALTH THEORY

22nd April, 2013

Time: **1.5 hours for Sections A & B**

Section A

(Answers in excess of what is indicated will not be marked)

MARK SCHEME

- a. List 5 **distinct** areas in the history. **½ mark for each (max 2.5)**
If similar points listed then maximum 1.5 marks e.g. site swelling, progression of swelling, surface, e.t.c. – these are all characteristics of swelling. If does not list then maximum 1.5 marks

Characteristics of facial swelling

Swelling in other parts of body

Urinary findings

Cardiorespiratory symptoms

Fever

Weight loss

Other relevant

- b. Elaborate upon the importance of 2. **Maximum 4 marks for each**
- c. List 3 differential diagnoses. **½ mark for each relevant(max 1.5)** e.g. facial malignancy such as Burkitt's Lymphoma, dental abscess, nephrotic syndr etc
- d. Discuss 3 laboratory investigations. **1 mark for each (max 3)**. No marks scored if investigations discussed are not related to the 3 differential diagnoses

UNIVERSITY OF GHANA MEDICAL SCHOOL



DEPARTMENT OF CHILD HEALTH
SENIOR CLERKSHIP EXAMINATION
GROUP B - CLASS OF 2014

28th June 2013

Time: 2hours (9-11am)

Answer all questions.

Answer each main question on a separate sheet of paper.

Failure to obey instructions and illegible writing will result in loss of marks.

1. Write short notes on each of the following (**do not exceed 1 page for each; extra pages will not be marked**): *(5 marks each)*
- Infantile spasms
 - Neisseria meningitides* infection
 - Problems that may occur in relation to the umbilical cord and their management

Total 15 marks

2. Akosua, who is 6 years old, has been wetting her bed for the past two weeks. She had previously been dry day and night from age 3 years.
- List 3 possible causes *3marks*
 - For each of the 3 causes give 2 points in the history which would be important to elicit and briefly discuss their relevance. *6 marks*
 - Outline the confirmatory laboratory diagnosis and treatment of one of the causes listed. *6 marks*

Total 15 marks

3. Write short notes on each the following in paediatric practice (**do not exceed 1 page for each; extra pages will not be marked**): *(5 marks each)*
- Lumbar puncture
 - Nebuliser
 - Height measurement

Total 15 marks

4. A mother brings her child to the outpatient department very worried that her 2 year old child might have tuberculosis because her domestic help who takes care of the toddler while she and her husband are at work has just been diagnosed as having smear positive pulmonary tuberculosis.
- How would you manage the situation? *6 marks*
 - Briefly discuss three measures that would reduce the risk of children becoming infected with tuberculosis. *9 marks*

Total 15 marks

DEPARTMENT OF CHILD HEALTH
SENIOR CLERKSHIP EXAMINATION
GROUP B - CLASS OF 2014

MARK SCHEME

28th June 2013

Please study scheme carefully before you start marking. The student does not have to make the points in the same order as in the scheme to be awarded the mark. Part of indicated mark can be awarded if examiner thinks it appropriate. Marks should not be awarded twice for the same point restated in another way. Examiner may award mark for other relevant information if thought appropriate

1. Infantile spasms (max 5 marks)

- Description of typical cluster of spasms - *1 mark*
- Onset age 4-6 months - *½ mark*
- Developmental delay/regression - *1 mark*
- Idiopathic or underlying neurological disease (majority) - *½ mark*
- EEG- hypsarrhythmia - *1 mark*
- Treatment – ACTH, steroids, vigabatrin, nitrazepam, clobazam, lamotrigine- ACTH or steroids and any other for *1 mark*

Neisseria meningitides infection (max 5 marks)

- Gram negative diplococcus - *¼ mark*
- Droplet spread - *¼ mark*
- Epidemic or sporadic - *½ mark*
- Clinical presentation: rapid progression with high case fatality, meningitis, septicaemia, rash often accompanies septicaemia-various types but characteristically purpuric, other relevant - *½ mark each (max 2 marks)*
- Treatment: IV crystalline penicillin or 3rd generation cephalosporin, correction of shock if present - *½ mark each (max 1½ marks)*
- Prevention: vaccine, chemoprophylaxis for close contacts - *¼ mark (max ½ mark)*

Umbilical cord problems (max 5 marks)

Infection – risk factors, clinical features, iv antibiotics, may require dressing - *2 marks*

Bleeding – not tied well, vit K deficiency; arrest bleeding- reclamp, vit K, transfuse blood if shock or severe anaemia - *2 marks*

Exomphalus – describe, often associated with other congenital anomalies, risk of rupture and infection, management- surgical, conservative for minor ones - *1 mark*

2. Max 15 marks

- a. Any 3 causes of secondary enuresis eg. UTI, Diabetes mellitus or insipidus, sexual abuse, psychological stress. *1 mark each (max 3 marks)*
- b. Answers must be related to causes chosen above. Eg. for UTI pain may occur in the flanks or suprapubic region due to pyelonephritis or cystitis; fever due to the

inflammatory response to the infection. *1 mark for each point in history, only 2marks per cause (max 6 marks).*

- c. Must choose one of the 3 causes. If chooses more than one cause only the first one will be marked. *(max 6 marks)*

3. Lumbar Puncture (max 5 marks)

- Procedure performed usually to collect CSF for diagnostic or therapeutic purposes - *½ mark*
- Should not delay start of antibiotics in bacterial meningitis - *½ mark*
- Indications *(max 2 marks)*
 - Diagnosis: meningitis - *½ mark*
 - Sub-arachnoid haemorrhage - *½ mark*
 - Therapeutic: administration of Intrathecal medication, relief of pseudo tumor cerebri - *½ mark*
 - Staging: malignancies - *½ mark*
- Procedure - precautions e.g ensure sterility, exclude coagulopathy; positioning of patient and landmarks used - *1 mark*
- Contraindications and Potential Complications - *1 mark*

Nebulizer (max 5 marks)

- Nebulising chamber connected to compressor machine or oxygen source - *1 mark*
- How it works: conversion of liquid medication to aerosol form/mist that child can easily inhale using mouthpiece or face mask - *1 mark*
- Indications + Drugs that can be used in nebulized form e.g. salbutamol, adrenaline, ipratropium, pentamidine, antibiotics etc - *2 marks*
- Advantages/disadvantages - *1 mark*

Height measurement (max 5 marks)

- Indications: growth assessment and monitoring, calculation of BSA, BMI, estimated GFR; reference for blood pressure - *2 marks*
- Technique and measuring device - *1½ marks*
- Interpretation: e.g. use of reference charts to determine z scores/centiles, HFA, WFH, comparison to mid-parental height - *1 mark*
- Limitations e.g. in young children - *½ mark*

4. Max 15 marks

a. Max 6 marks

- Take full history – give 3 relevant points eg. whether baby symptomatic, BCG immunisation etc - *1½ marks*
- Physical examination – 4 examination findings that would be important to note - *2 marks*
- Investigations - 3 relevant (must include CXR) - *1½ marks*
- Full treatment for TB or prophylaxis with INH ± Rifampicin depending on findings above - *1 mark*

b. Max 9 marks

3 marks for each relevant measure. If listed but not briefly discussed then only 1mark per measure.

UNIVERSITY OF GHANA MEDICAL SCHOOL



DEPARTMENT OF CHILD HEALTH
SENIOR CLERKSHIP EXAMINATION
GROUP A - CLASS OF 2014

23rd August 2013

Time: 2hours (9-11 am)

Answer all questions.

Answer each main question on a separate sheet of paper.

Failure to obey instructions and illegible writing will result in loss of marks.

1. Write short notes on each of the following (**do not exceed 1 page for each; extra pages will not be marked**): *5 marks each*
- Bacille Calmette Guerin vaccine
 - Haematuria in children
 - Three problems that may occur in preterm babies and their prevention

Total 15 marks

2. Kojo's sister reports to their mother that he is refusing to get up and get ready for school. Their mother follows up and finds that he is unable to move his right upper and lower limbs and so takes him to the emergency ward.
- List 2 possible causes *3marks*
 - Briefly discuss 3 points in the history which would help to distinguish between the 2 causes listed above. *3 marks*
 - Briefly discuss 3 physical examination features which would help to distinguish between the 2 causes listed above. *3 marks*
 - List 3 investigations and indicate how they would help to distinguish between the 2 causes. *6 marks*

Total 15 marks

3. Write short notes on each the following in paediatric practice (**do not exceed 1 page for each; extra pages will not be marked**): *5 marks each*
- Gentamicin
 - Glucometer
 - Diaper rash

Total 15 marks

4. As a District Medical Officer who has recently taken up appointment you find that a lot of young children are dying from diarrhoeal diseases in your district. You set the reduction of diarrhoea related morbidity and mortality as one of your aims for the year.
- List 3 key stakeholders you would work with to achieve this aim
 - Discuss 3 main strategies you think would help to achieve your aim.

Total 15 marks

SENIOR CLERKSHIP EXAMINATION
GROUP A - CLASS OF 2014

MARK SCHEME

23rd August 2013

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1. Max 15 marks

a. Bacille Calmette Guerin vaccine (max 5 marks)

- For prevention of tuberculosis, efficacy more against disseminated disease
1 mark
- Live attenuated - *1 mark*
- Intradermal over the deltoid - *1 mark*
- Given within 1st week of life in areas/ethnic communities with high endemicity -
1 mark
- Complications: BCG adenitis, disseminated BCG infection in immunocompromised - *1 mark*

b. Haematuria in children (max 5 marks)

- Red blood cells in urine *1 mark*
- Macroscopic, microscopic *1 mark*
- Glomerular - Acute glomerulonephritis, chronic glomerulonephritis etc *1 mark*
- Non glomerular – infection, trauma sickle cell etc *1 mark*
- Cause determined from history, physical exam and other laboratory tests, *1 mark*

c. Three problems that may occur in preterm (max 5 marks)

- Any 3 problems and how each can be prevented *1.5 marks* for each
- Good discussion *½ mark*

2. Clinical scenario (max 15 marks)

- a. Has right sided hemiplegia- any 2 causes eg stroke in Sickle cell patient, meningitis etc *1.5 marks each (max 3 marks)*
- b. Any 3 appropriate points in history which **would help to distinguish** the two mentioned above. *1 mark each (max 3 marks)*
- c. Any 3 appropriate physical examination features which **would help to distinguish** between them. *1 mark each (max 3 marks)*

- d. Any 3 investigations which **would help to distinguish** between them. *1 mark each and additional 1 mark each for explanation (max 6 marks)*

3. Max 15 marks

a. Gentamicin (max 5 marks)

- Aminoglycoside *½ mark*
- 2 indications for use *2 marks*
- Routes of administration *½ mark*
- 2 side effects *2 marks*

b. Glucometer (max 5 marks)

- Machine used to measure blood glucose *1 mark*
- Commonest indications –diabetes mellitus, patients at risk of hypoglycaemia *1 mark*
- Used at bedside in hospital or used at home *½ mark*
- Describe how it's used-check code on machine matches that on container; swab digit with saline not spirit, drop of blood on test strip, slot into glucometer, result displayed on screen in a few seconds *1½ marks*
- Keeps record of past measurements in memory *½ mark*
- Abnormal values to be confirmed with plasma glucose *½ mark*

c. Diaper rash 5marks

- Causes –irritant, candida, seborheic dermatitis, atopic eczema, histiocytosis etc 2 examples *1 mark*
- Area involved – irritant spares flexures, others don't *1 mark*
- Treatment depends on cause *½ mark*
- Irritant – change soiled diapers immediately, barrier cream *1½ marks*
- Description of one of other causes eg , candida, seborheic dermatitis *1 mark*

4. District medical officer project max 15 marks

- a. Any 3 distinct stakeholders e.g. community leaders, hospital staff, District Health Management Team etc. *max 3 marks. If does not list community involvement then maximum 2.5 marks*
- b. Any 3 relevant strategies discussed *-4 marks each*
Eg. improving access to potable water, promotion of breast feeding, etc