

Name: _____

Date: _____

Total Marks: _____ /325 = %

Paediatric Clinician Task-Sharing Mock Examination

Please put the name and date on the top of each page in the space provided.

You will have 2 hours 30 minutes for this exam paper.

You should have a calculator and a list of medication and their doses for reference.

Remember to read the questions carefully.

1) You are called to see a patient in the emergency room who has 2 emergency or immediate signs on triage.

a. List 5 emergency signs (25)

Airway obstruction
Absent Breathing
Severe respiratory distress
Cyanosis
Shock
Unconscious
Seizures
Severe Pain
Major trauma

Max 25 points

b. Explain why triage is important (5)

It reduces the mortality and morbidity by identifying the patients who are most in need of care

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2) You are training parents about how to treat choking episodes in children.

a. In scenario 1 the child has an effective cough. What is the management of this child? (5)

Continue to encourage coughing

b. In scenario 2 the child is conscious but has an ineffective cough. Explain the next 2 steps of management for this child. The child is a 5 month old infant. (10)

5 Back slaps

5 Chest thrusts

c. In scenario 3 the child is conscious but has an ineffective cough. Explain the next 2 steps of management for this child. The child is 8 years old. (10)

5 Back slaps

5 Abdominal Thrusts

3) You are in the outpatient department and see a 9-year-old girl who presents with a 4 week history of headache.

a. List 5 red flags in the history that would make you concerned about a brain tumour (25)

Persistent or recurrent headache

Persistent or recurrent vomiting – especially early morning vomiting

New balance problems

New behavioural change

Blurred or double vision

Seizures

Headache worse on lying down

Headache wakes patient up from sleep

Max 25 points

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- b. A brain tumour can cause raised intracranial pressure. List 3 findings on examination that would be seen in raised intracranial pressure (15)

Papilloedema on fundoscopy
Unequal pupils
Cushing's triad – hypertension, bradycardia and irregular respiration

- c. List 3 other causes of raised intracranial pressure (20)

Brain haemorrhage
Brain abscess/TB
Hydrocephalus
Meningitis

- d. Explain what measures can be taken for neuroprotection in a patient with raised intracranial pressure (25)

Maintain normal blood glucose
Bed elevation to 30 degrees
Head nursed in the midline
IV Mannitol or 3% Sodium chloride
Control seizures

- e. What investigation must you not perform in a patient with raised intracranial pressure? (5)

Lumbar puncture

- 4) You are called to see a 36-week-gestation baby who is now 4 hours of age and has not managed to breastfeed. She weighs 2.5kg

- a. List 3 features you want to examine for in this baby (15)

Hypothermia
Hypoglycaemia
Infection

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On examination you find that the baby has a temperature of 35.4°C. Her blood glucose is 77mg/dl (4.3mmol/l). She has no respiratory distress and has no features of shock. Her anterior fontanelle is normal. Her vital signs are normal.

You want to know if there are any risk factors for sepsis.

- b. List 3 risk factors for sepsis in newborn babies (15)

Preterm
Prolonged rupture of membranes
Maternal fever with 24 hours of the delivery or during the delivery
Chorioamnionitis
Maternal history of group b streptococcus on vaginal swab

Max 15 marks

- c. What is the best option for feeding this baby? (5)

Start breast milk as soon as possible via cup/spoon or NG tube.

- d. How is the best way to keep this baby warm? (5)

Skin-to-skin with mother

- e. You cannot be sure this baby does not have an underlying infection and want to treat with antibiotics. Please prescribe the appropriate antibiotics including frequency (30)

IV Ampicillin 125mg (50mg/kg) every 12 hours
IV Gentamicin 12.5mg (5mg/kg) every 36 hours

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- 5) You are called to see a 5-year-old girl in the emergency department who has been admitted with a 4-day history of fever. She is well nourished.

On examination she is lethargic. Her heart rate is 150 beats per minute. She is cold peripherally and her capillary refill time is 4 seconds. She is breathing fast and has mild respiratory distress. Her temperature is 40°C. She is not pale. A malaria test is negative.

- a. What is the emergency/immediate sign present in this patient? (5)

Shock

- b. What do you think is the cause of her presentation? (5)

Sepsis

- c. Describe how you would initially manage this patient. Her weight is 18kg. Write any prescriptions in full. (55)

Call for help
Assess ABCD
Ensure airway is patent
Give oxygen
Obtain Intravenous or intraosseous access
Give IV fluid bolus 180ml (10ml/kg) Ringer's Lactate or 0.9% Sodium Chloride
IV Ampicillin 900mg (50mg/kg) every 6 hours
IV Gentamicin 126mg (7mg/kg) every 24 hours
Check blood glucose
Reassess patient after each fluid bolus

Max 55 marks

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d. When you reassess after a fluid bolus, list 5 clinical signs you are observing for? (25)

Signs of shock
Conscious level
Heart Rate
Respiratory Rate
Capillary refill time

Signs of fluid overload or heart failure
Increasing oxygen requirement/falling SpO₂
Bilateral crepitations on auscultation of the chest
Enlarging liver size
Gallop heart rhythm

Max 25 marks

6) You are called to see an infant who is unconscious. He is 6 months old.

a. List 2 differences between the airway of an infant and an adult (10)

Larger tongue in proportion to oral cavity
Smaller pharynx
Larger and floppier epiglottis
Trachea is narrower and less rigid

Max 10 marks

b. What position do you place the infant's head in to ensure he has a patent airway and why? (10)

Neutral position
Due to the large occiput which tends to flex the head causing airway obstruction