

FexNet Collated Questions:

Neonates

1. Jaundice
2. Neonatal Resuscitation
3. Meconium
4. Shock
5. Shock
6. Shock
7. Vomiting
8. Jaundice
9. Jaundice (almost identical to Q8)

Question 1 (21 marks)

A concerned first-time mother has brought her 2-week-old baby to the ED because the baby is jaundiced.

- i. What is the name of the pathological condition caused by neonatal jaundice? (1 mark)

- ii. If left untreated, what are 2 sequelae of this condition? (2 marks)

- iii. List 2 benign causes of neonatal jaundice (2 marks)

- iv. List 4 pathological causes of neonatal jaundice (4 marks)

v. What 5 historical features will guide your assessment of this child? (5 marks)

vi. How can a serum bilirubin assist your assessment? (2 marks)

vii. List 5 other investigations you might consider (5 marks)

Question 2 (15 marks)

A woman unexpectedly gives birth in your emergency department at 38 weeks gestation. You are tasked with resuscitating the newborn. Immediately after cutting the cord a female infant is placed on the resuscitaire in front of you.

She is floppy with no spontaneous movement and no respiratory effort

She is cyanosed

Heart rate 50 bpm

There is copious meconium stained liquor on the baby

- i. Before addressing the airway, what steps will you undertake? (3 marks)

- ii. Explain why oxygen saturations are measured on the right hand (rather than left hand) of a newborn baby (3 marks)

- iii. After ensuring adequate head positioning, airway opening & suctioning of secretions the baby still has inadequate respiratory effort. Outline the advantages and disadvantages of a T-piece ventilation device compared to a self-inflating bag in neonatal resuscitation (3 marks)

- iv. List the initial T-piece system settings you would use in this setting (4 marks)

FiO ₂	
Rate	
PEEP	
Positive Inspiratory Pressure	

- v. Describe how you would identify the umbilical vein (for catheter insertion) in an umbilical cord that has just been cut under the clamp (2 marks)

Question 3

A 36 hour old neonate presents with a community nurse because of failure to pass meconium. There has been mucous-like vomiting but the neonate otherwise looks well. PR, BP, RR and saturations are within normal ranges.

i. With regard to this presentation, (4 marks)

(a) A normal digital rectal examination excludes which diagnosis?

(b) The successful passage of an NG tube excludes which diagnosis?

(c) What is the characteristic X-ray appearance of duodenal atresia?

(d) Name a congenital condition associated with neonatal bowel obstruction.

ii. Prior to transport to a specialist paediatric centre name 5 essential actions you should perform in ED to ensure the safety of the neonate in transfer (5 marks)

iii. Describe the intravenous maintenance fluid choice and maintenance fluid rate you would prescribe for this neonate prior to transfer. (2 marks)

iv. Name 2 other potential causes of neonatal intestinal obstruction at this age not

Question 4

A 3 week old boy has been brought to the ED by his mother. The child is not feeding well and has failed to gain weight since birth.

1. List 5 features of your examination, including the relevance of each feature. (5 marks)

1) _____

2) _____

3) _____

4) _____

5) _____

2. List and justify 5 investigations you might perform. (5 marks)

1) _____

2) _____

3) _____

4) _____

5) _____

QUESTION 5 (12 MARKS)

A four day neonate presents to the Emergency department. The child is shocked. Observations are RR60, HR 190, Capillary refill time centrally is 5 secs. They are responsive to pain.

1. List **three** antenatal / perinatal risk factors for neonatal sepsis. (3 marks)

(1) _____

(2) _____

(3) _____

2. Give **three** differential diagnoses of neonatal collapse other than sepsis. (3 marks)

(1) _____

(2) _____

(3) _____

3. What empiric therapy would you commence? Be specific. (3 marks)

4. List **6** investigations you would order. (3 marks)

(i) _____

(ii) _____

(iii) _____

(iv) _____

(v) _____

(vi) _____

Question 6: (9 Minutes)

(18 marks)

A 5 day old baby girl is brought into the emergency department. She has had poor feeding for the last 24 hrs and has had increasing lethargy. The baby appears pale, floppy and mottled.
The child is 3.8kg.

Initial vital signs are:

HR	190
RR	60
Cap refill	5secs
BP	Unable to record
Sats	Not reading

I. List eight (8) differential diagnoses for this presentation (8 Marks)

II. List four (4) immediate actions you would take (4 Marks)

III. You decide to intubate the baby. (6 Marks)

List six (6) pieces of equipment (including sizes –multiple sizes do not count as separate answers) that you would prepare for the intubation of this child.

Question 7 (14 marks)

A pre-term female neonate, 4 weeks old (age adjusted to term) is brought in with 12 hours of vomiting. On examination she has sunken eyes and is irritable. Her observations are as follows;

Temp 39.5

CRT 4 secs

HR 172 RR 40 Sats 98% ra

With regards to this vomiting neonate presentation – list 3 obstructive and 3 non-obstructive causes for the vomiting. (6 marks)

Non-obstructive	Obstructive
1.	1.
2.	2.
3.	3.

IV access is obtained and an NG placed for persisting vomiting. A plain AXR is performed and is demonstrated below



Identify the most significant clinical finding on the abdominal film and the likely diagnosis (2 marks)

Outline your further management for this child. Candidates can assume that apart from the NGT insertion and IV access obtained no further management has been performed. (6 marks)

**Question 8 (Total
12 Marks)**

A 5-day old neonate is brought in to ED by his mother after being discharged from hospital following a normal vaginal delivery.
His mother reports poor feeding for the last few hours and she has noticed an increasing yellow discoloration of his skin:

His vital signs are:

HR 160
RR 32
CRT 2 -3 sec
AVPU

The child is jaundiced.

Questions:

1- List 5 likely causes for his jaundice (5 marks)

2- List 4 red flags during history and examination that warrant admission to the hospital. (4 marks)

3- List 3 investigations required in ED and provide a rationale for each one justify each one of them. (3 marks)

Investigations	Rationale / Justification

Question 9

A 5 day old neonate is brought in to ED by his mother after being discharged post normal vaginal delivery.

Mother reports poor feeding for last few hours and she noticed increase yellow discoloration of his skin:

His vital signs are:

HR 160
RR 32
CRT 2 -3 sec
AVPU Alert

The child is jaundiced.

Questions:

1- List 7 likely causes for his jaundice

(7 marks)

2- List 6 red flags during history and examination that warrant admission to the hospital.

(6 marks)

3- List 6 investigations required in ED and justify each one of them.

(6 marks)

Investigations	Rationale / Justification

4- This baby did not require therapy and no serious cause was found for his jaundice.

List 4 criteria this child needs to meet for safe discharge :

(4 marks)
