PEADIATRIC RIVIEW

DR. AHMAD AQEL

2022

Important information about Vital signs of the newborn

- **Apical heart rate:**
  - ✓120 to 160 b/m, 80 to 100 b/m(if sleeping), up to 180 (if crying); auscultate at the fourth intercostal space for 1 full minute to detect abnormalities.
- **Respirations: 30 to 60 breaths/m; assess for 1 full minute.**
- **Assess HR & RR first before assessing other V/S**
- **Axillary temperature:** 37 °C to 37.2 °C
- **Blood pressure:** Usually not done in term newborn, 80–90/40–50 mm Hg
- **Body measurements** (approximate)
  - ✓Length: (45 to 55 cm)
  - ✓Weight: 2500 to 4000 g
  - ✓Head circumference: 33 to 35 cm

Apgar score

Appearance (skin color)
Pulse (heart rate)
Grimace (reflex irritability)
Activity (muscle tone)
Respiratory (effort)

Performed at 1 min and 5 min after birth, may be reassessed at 10 min if score 6 or less

0-3 = full resuscitation
4-6 = some resuscitation (o2, suction, stimulate baby)
7-10 = routine post delivery care

INDICATOR	0 POINT	1 POINT	2 POINTS
HR	Absent	<100 beats/m	100-140 beats/min
RR & effort	Absent	Slow irregular breathing, weak cry	Good rate and effort, vigorous cry
Muscle tone	Flacid limp	Minimal flexion of extremities	Good flexion, active motion
Reflex irritability	No response	Minimal response (grimace) to suction or to gentle slap on soles	Respond promptly with a cry or active movement
Skin color	Pallor or cyanosis	Body skin color normal, extremities blue	Body and extremity skin color normal

Fontanel	Characteristics	Closure
Anterior	Soft, flat, diamond-shaped;3-4cm wide and 2-3cm long	Between 12 and 18 months of age
Posterior	Triangular; 0.5-1 cm wide, located between occipital and parietal bones	Between birth and 2-3 months of age

Jaundice

- **Normal or physiological jaundice appears after the first 24 hours in full-term newborns and after the first 48 hours in premature newborns**
- **Jaundice occurring before this time (pathological jaundice) may indicate early hemolysis of red blood cells and must be reported to the HCP.**
- **Elevated serum bilirubin: when serum levels are >12 mg/dL**
- Phototherapy: use of light to reduce serum bilirubin levels in the newborn.
- Adverse effects (eye damage, dehydration, or sensory deprivation)

Liquid iron preparation stains the teeth. Teach the parents and child that liquid iron should be taken through a straw and that the teeth should be brushed after administration.

Hepatitis A virus (HAV) is transmitted by Fecal-oral route, Ingestion of contaminated food

The presence of Sternberg-Reed cells is considered diagnostic of Hodgkin disease

Do not move or forcefully restrain the child during a tonic-clonic seizure, and do not place anything in the mouth during a seizure.

Ketonuria in the presence of hyperglycemia is an early sign of ketoacidosis and a contraindication to exercise.

Caution children not to allow anyone else to use their lancet when doing glucotest because of the risk of contracting hepatitis B virus or human immunodeficiency virus infection.

Emergency Management of Anaphylaxis

- EpiPen (0.3 mg) IM for child weighing 25 kg or more
- Observe for adverse reactions, such as tachycardia, hypertension, irritability, headaches, nausea, and tremors

Types of Insulin

1. **Rapid-acting insulin** (e.g., **NovoLog**) reaches the blood within **15 minutes** after injection. The insulin peaks 30 to 90 minutes later and may last as long as 5 hours.
2. **Short-acting (regular) insulin** (e.g., **Novolin R**) usually reaches the blood within **30 minutes** after injection. The insulin peaks 2 to 4 hours later and stays in the blood for about 4 to 8 hours.
3. **Intermediate-acting insulins** (e.g., **Novolin N**) reach the blood **2 to 6 hours** after injection. The insulins peak 4 to 14 hours later and stay in the blood for about 14 to 20 hours.
4. **Long-acting insulin** (e.g., **Lantus**) takes **6 to 14 hours** to start working. It has no peak or a very small peak 10 to 16 hours after injection. The insulin stays in the blood between 20 and 24 hours

Important positions related to specific conditions

Conditions	Positions
Increased ICP	Head end to 15 – 30 degrees
After head and neck surgery	Head end to 15 – 30 degrees
Enema	Left lateral
High Fowler's	90 degrees
Low Fowler's	15 degrees
Semi-Fowler's	30 degrees
Fowler's	45 degrees
Cardiac Position	> 120 degrees
For ET tube patients	Sniffing position
After tonsillectomy	Modified Sim's position

Important positions related to specific conditions

Conditions	Positions
Shock	Trendlenburg position
Hip replacement	Supine with leg abducted using abduction pillows
After mastectomy	Supine or Fowler's position with the affected arm elevated on arm board
Dumping syndrome	Low Fowler's position
After liver biopsy	Lie on right side to prevent bleeding
After Kidney biopsy	Supine
Post lumbar puncture	Prone with head flat
Tetralogy of Fallot	Knee chest position, squatting position

Important notes

Rubella (German Measles) in the first trimester causes heart malformation in the fetus
JVP refers to Jugular Venous Pressure
The influenza virus is an RNA virus; The **novel coronavirus** is an RNA virus
Primary lung disease leading to Right Ventricular failure is **Cor Pulmonale**
Hypocalcemia in blood results in **Tetani**
The absence of speech is **aphasia**
Burns patients need a **high protein diet**
Blue discoloration of the peri-umbilical area in acute pancreatitis is called **Cullen's sign**
Hematochezia is fresh blood in the stool

Important notes

Anticholinergics: Drugs used to decrease gastric motility
Varicocele: Abnormal dilation of the spermatic vein
The most important sign of tetanus is: **Respiratory tract spasm**
Achalasia: The absence of peristalsis in the esophagus
Astigmatism: a condition caused by an irregular curvature of the lens
Scleroderma means hard skin
Delirium tremens: withdrawal symptom of alcohol
Excess daytime sleep is seen in Narcolepsy
Mydriatics: The drug which dilates the pupils

Important notes

Hypnosis is effective in phobia
Play during infancy is Solitary play
Pain in the breast is termed mastodynia
An example of an Iron chelating agent is Deferoxamine
Pellagra is due to the deficiency of Niacin
Xenophobia is fear of strangers
Breast cancer is most likely to occur in the left breast
The most common form of childhood cancer is Leukemia
The daily requirement of iodine is 0.2 mg

Important notes

The Urea breath test to detect Helicobacter Pylori
Normal central venous pressure is 2 to 8 mmHg or 5 to 10 cmH2O
Cushing Triad of Increased ICP ✓ **Elevated Systolic BP** ✓ **Bradycardia** ✓ **Irregular respiration**
Stridor, a high-pitched, noisy respiration, is usually an indication of: narrowing of the upper airway
Pre mature <37 weeks
Full term 37 to 42 weeks
Post term >42 weeks

You're assessing the one minute APGAR score. you note the following : HR 130, pink body and hands with cyanotic feet, weak cry, flexion of the arms and legs, active movement and crying when stimulated. What is your patient's APGAR score?

A. APGAR 5
B. APGAR 8
C. APGAR 9
D. APGAR 10

ANSWER: B

INDICATOR	0 POINT	1 POINT	2 POINTS
HR	Absent	<100 beats/m	100-140 beats/min
RR & effort	Absent	Slow irregular breathing, weak cry	Good rate and effort, vigorous cry
Muscle tone	Flacid limp	Minimal flexion of extremities	Good flexion, active motion
Reflex irritability	No response	Minimal response (grimace) to suction or to gentle slap on soles	Respond promptly with a cry or active movement
Skin color	Pallor or cyanosis	Body skin color normal, extremities blue	Body and extremity skin color normal

You're assessing the one minute APGAR score, you note the following : heart rate 101, cyanotic body and extremities, no response to stimulation, no flexion of extremities, and strong cry. What is patient's APGAR score?

A. APGAR 4
B. APGAR 6
C. APGAR 3
D. APGAR 2

ANSWER: A

INDICATOR	0 POINT	1 POINT	2 POINTS
HR	Absent	<100 beats/m	100-140 beats/min
RR & effort	Absent	Slow irregular breathing, weak cry	Good rate and effort, vigorous cry
Muscle tone	Flacid limp	Minimal flexion of extremities	Good flexion, active motion
Reflex irritability	No response	Minimal response (grimace) to suction or to gentle slap on soles	Respond promptly with a cry or active movement
Skin color	Pallor or cyanosis	Body skin color normal, extremities blue	Body and extremity skin color normal

A newborn's five minute APGAR score is 5. Which of the following nursing interventions will you provide to this newborn?

A. Routine post-delivery care
B. Continue to monitor and reassess the APGAR score in 10 minutes.
C. Some resuscitation assistance such as oxygen and rubbing baby's back and reassess APGAR score after 5 minuets.
D. Full resuscitation assistance is needed and reassess APGAR score.

ANSWER: C

A newborn with hyperbilirubinemia who is being breast-fed. The nurse should provide which instruction to the mother?

A. Feed the newborn less frequently.
B. Continue to breast-feed every 2 to 4 hours.
C. Switch to bottle-feeding the infant for 2 weeks.
D. Stop breast-feeding and switch to bottle-feeding permanently.

ANSWER: B

The nurse is preparing to care for a newborn receiving phototherapy. Which interventions should be excluded in the plan of care?

A. Decrease fluid intake and Expose all of the newborn's skin.
B. Monitor skin temperature closely.
C. Reposition the newborn every 2 hours.
D. Cover the newborn's eyes with eye shields or patche

ANSWER: A

Which assessment provides the most accurate guide to determine the adequacy of fluid resuscitation in a child with burn ?

A. Skin turgor
B. Level of edema at burn site
C. Adequacy of capillary filling
D. Amount of fluid tolerated in 24 hours

ANSWER: C

Which result will most likely be abnormal in a child with hemophilia?

A. Platelet count
B. Hematocrit level
C. Hemoglobin level
D. Partial thromboplastin time

ANSWER D

Which of the following is not precipitating factors for sickle cell anemia?

A. Stress
B. Trauma
C. Infection
D. Fluid overload

ANSWER D

A child with hemophilia A has slipped and bumped his knee. The nurse should prepare to administer which prescription?

A. Injection of factor X
B. Intravenous infusion of iron
C. Intravenous infusion of factor VIII
D. Intramuscular injection of iron using the Z-track method

ANSWER C

A child with iron deficiency anemia, which of the following is true regarding the administration of a liquid oral iron supplement.

A. Administer the iron at mealtimes.
B. Administer the iron through a straw.
C. Mix the iron with cereal to administer.
D. Add the iron to formula for easy administration.

ANSWER B

A child with sickle cell anemia admitted for the treatment of vaso-occlusive crisis. Which of the following is inappropriate management?

A. Restrict fluid intake.
B. Avoid strain on painful joints.
C. Apply nasal oxygen at 2 L/minute.
D. Provide a high-calorie, high-protein diet.

ANSWER A

A child with leukemia who is receiving chemotherapy. The nurse notes that the platelet count is 15,000 mm3. On the basis of this result, which intervention should the nurse include?

A. Initiate bleeding precautions.
B. Monitor closely for signs of infection.
C. Monitor the temperature every 4 hours.
D. Initiate protective isolation precautions.

ANSWER A

A 3 y child is monitored for s & s of increased ICP after a craniotomy. which of the following is an early sign or symptom of increased ICP?

A. Vomiting
B. Bulging anterior fontanel
C. Increasing head circumference
D. Complaints of a frontal headache

Answer A

Nursing care of a child in the hospital with suspected abuse should include:

A. Assign a variety of nurses to the child so that he can get to know and trust the whole staff.
B. Praise the child's ability to minimize feelings of shame and guilt.
C. Treat the child as someone with a specific problem, not as an “abuse” victim, to promote self-esteem and minimize feelings of guilt.
D. Talk with and ask questions as often as possible to show interest and get to know the child better

Answer: C

A disabled 4-y child, the mother is constantly giving in to the childتستسلم لرغبات الطفل, allowing him to have his own way. What proactive guidance can the nurse provide to promote normalization in this relationship?

A. "Giving in" does no harm to a child when they have disabilities
B. Parents must set reasonable limits, children are more likely to develop independence and achievement related to their limitations.
C. Advise the parent to wait for any procedure to be explained to the child until he or she is in the health care setting to avoid disturbing the child unnecessarily.
D. Make the parent aware that it would be unfair for siblings to expect similar rules to apply to all children in the family.

Answer: B

When caring for a child with a visual impairment, All of the following intervention to reduce stress during hospitalization are true except

A. Reassure the child and family throughout every phase of treatment.
B. The same nurse should care for the child to ensure consistency in the approach.
C. The nurse take over all the routine care of the child
D. HCPs should identify themselves as soon as entering the child's room.

Answer: C

A 5-year-old is recovering from a tonsillectomy and adenoidectomy and is being discharged home with his mother. Home care instructions should include all of the following except?

A. Observe the child for continuous swallowing.
B. Encourage the child to take sips of cool, clear liquids.
C. Observe the child for restlessness or difficulty breathing.
D. Encourage the child to cough every 4 to 5 hours to prevent pneumonia.
E. Administer an analgesic such as acetaminophen for pain

Answer: D

A 12-year-old child C/O fever, headache, and sore throat. A diagnosis of group A beta-hemolytic streptococcus (GABHS) pharyngitis. which of the following statements about GABHS is correct?

A. Children with a GABHS infection are less likely to contract the illness again after the antibiotic regimen is completed.
B. A follow-up throat culture is recommended following the completion of antibiotic therapy.
C. Children with a GABHS infection are at increased risk for the development of rheumatic fever (RF) and glomerulonephritis.
D. Children with a GABHS infection are at increased risk for the development of rheumatoid arthritis in adulthood

Answer: C

A 3-month-old infant presented with : irritability, crying, refusal to nurse for more than 2 to 3 minutes, rhinitis, and a rectal temperature of 38.8° C. The nurse anticipates a diagnosis of:

A. Acute otitis media (AOM)
B. Otitis media with effusion (OME)
C. Otitis externa
D. Respiratory syncytial virus (RSV)

Answer: A

An appropriate nursing action related to Digoxin/Lanoxin administration to an infant would be:

A. check respiratory rate & blood pressure before each dose
B. repeating dose if the child vomits within 30 minutes of administration
C. count the apical rate for 30 seconds before administration
D. withhold the dose if apical heart rate <80-100 beats/min

Answer: D

All of the following causes increased pulmonary blood flow with congenital cardiac defects except ?

A. atrial septal defects (ASDs)
B. ventricular septal defects (VSDs)
C. tetralogy of fallots
D. patent ductus arteriosus

Answer: c

The comment made by a parent of a neonate that alerts a nurse about the presence of a CHD is:

A. he is always hungry
B. he get tired during feedings
C. he is fussy (getting angry) for several hours every day
D. he sleeps all the time

Answer: b

A 5-year-old is seen in the urgent care clinic with the following history and symptoms: sudden onset of severe sore throat after going to bed, drooling and difficulty swallowing, axillary temperature of (39.0C), clear breath sounds, and absence of cough. The child appears anxious and is flushed. Based on these symptoms and history, the nurse anticipates a diagnosis of:

A. Group A beta hemolytic streptococcus (GABHS) pharyngitis

B. acute tracheitis

C. acute epiglottitis

D. acute laryngotracheobronchitis

Answer: c

A child is admitted to the pediatric unit. The mother reports that the doctor says her son is anemic. What laboratory findings/manifestations would the nurse expect to see to confirm iron deficiency anemia?

A. cyanosis, due to inadequate oxygen saturation of existing hemoglobin
B. decreased reticulocyte count
C. total iron-binding capacity that is elevated above the normal range
D. decreased BP changes, which are an early sign because of the compensatory mechanisms

Answer: c

All of the following are true regarding administration of corticosteroid medication using a metered-dose inhaler (MDI) except?

A. shake the device prior to use

B. rinse and expectorate after administration

C. inhale slowly with medication administration

D. exhale quickly after medication administration

Answer: D

A nurse is caring for a child who is receiving oxygen. Which of the following findings indicates oxygen toxicity?

A. increased blood pressure

B. hyperventilation

C. decreased $PaCO_2$

D. unconsciousness

Answer: D

A nurse is caring for a child who is receiving a bronchodilator medication by nebulized aerosol therapy. Which of the following actions should the nurse take?

A. obtain vital signs prior to the procedure
B. tell the child to take slow deep breaths
C. determine if the child should use a mask
D. attach the device to an air source
E. All of the above

Answer: E

A nurse is assessing a child who has epiglottitis. Which of the following findings should the nurse expect?

A. hoarseness , difficulty speaking, and stridor

B. difficulty swallowing and drooling

C. low grade fever

E. dry, barking cough

F. a and b only

Answer: f

A nurse is assessing a child who has asthma. Which of the following are indications of deterioration in the child's respiratory status?

A. oxygen saturation 95%

B. wheezing, nasal flaring, retraction of sternal muscles

C. warm extremities

D. a and b

Answer: B

A nurse is reviewing the diagnostic findings for a preschool age child who is suspected of having cystic fibrosis. Which of the following findings should the nurse identify as an indication of cystic fibrosis?

A. sweat chloride content 85 mEq/L

B. increased serum levels of fat-soluble vitamins

C. 72 hour stool analysis sample indicating hard, packed stools

D. chest x-ray negative for atelectasis

Answer: A

Which of the following positions should the nurse instruct the child to take when experiencing a nosebleed?

A. sit up and lean forward

B. sit up and tilt the head up

C. lie in a supine position

D. lie in a prone position

Answer: A

The nurse taking care of a 5-year-old cancer patient with ulcerative stomatitis is getting ready to perform mouth care. Which of the following principles should NOT be followed?

A. A soft, bland diet, will help with the pain.
B. Lemon glycerin swabs because they remind children of lemon drops.
C. Using a soft toothbrush will decrease the tendency for gums to bleed.
D. A solution of 1 tsp of baking soda and tsp of table salt in 1 quart of water is helpful for mouth rinse.

Answer: B

Assessment an infant with hypothyroidism may include:

A. Normal thyroid hormone level, TSH levels may be slightly elevated
B. Increased TSH in response to ↑ thyroid hormone
C. Dry skin, puffiness around the eyes, sparse hair, constipation, sleepiness, lethargy, and mental decline
D. Clinical features, including irritability, hyperactivity, short attention span, tremors, insomnia, and emotional lability

Answer: c

A 10-year-old child with type 1 diabetes mellitus has been diagnosed with diabetic ketoacidosis (DKA). Which assessment data will you expect to note in this child?

A. Shallow or normal respirations, hypertension, and tachycardia
B. Fruity breath odor and decreasing level of consciousness
C. Headache, hunger, and excessive irritability
D. Normal urine output with specific gravity less than 1.020 and a trace of ketones

Answer: B

The nurse is caring for a 4-year-old girl with a history of frequent urinary tract infections (UTIs). Which of the following is wrong statement ?

A. It is not advised to have the child drink a large amount of fluid before obtaining the urine sample.
B. The specimen must be fresh—less than 1 hour after voiding with storage at room temperature or less than 4 hours after voiding with refrigeration.
C. The key to distinguishing a true UTI from asymptomatic bacteriuria is the presence of pyuria.
D. Because the child is febrile, the nurse should immediately start an antimicrobial and then obtain a urine culture.

Answer: D

A child with periorbital edema, decreased urine output, pallor, and fatigue. The child is being examined for acute glomerular nephritis. Which of the following nursing measures should be considered?

A. On examination, there is usually decrease in BP
B. Urinalysis shows hematuria, proteinuria, and increased specific gravity
C. Assessment of the child's appearance for signs of ophthalmic complications
D. All of the above

Answer: B

When caring for a child with acute renal failure, which nursing measure requires immediate attention?

A. Serum potassium concentrations in >6.5mEq/L
B. Sodium level of 135
C. hemoglobin of 8
D. Mannitol and furosemide for a urine output of 2 ml/kg/hr

Answer: A

What clinical manifestations suggest hydrocephalus in an infant?

a. Closed fontanel and high-pitched cry

b. Bulging fontanel and dilated scalp veins

c. Constant low-pitched cry and restlessness

d. Depressed fontanel and decreased blood pressure

ANS: B

What is a priority of care when a child has an external ventricular drain (EVD)?

a. Irrigation of drain to maintain flow

b. As-needed dressing changes if dressing becomes wet

c. Frequent assessment of amount and color of drainage

d. Maintaining the EVD below the level of the child's head

ANS: C

The nurse is discussing long-term care with the parents of a child who has a ventriculoperitoneal shunt. What issues should be addressed?

A. Most childhood activities must be restricted.
B. Cognitive impairment is to be expected with hydrocephalus.
C. Wearing head protection is essential until the child reaches adulthood.
D. Shunt malfunction or infection requires immediate treatment.

ANS: D

Which of the following is a clinical manifestation of increased intracranial pressure (ICP) in infants?

A. Irritability
B. Photophobia
C. Vomiting and diarrhea
D. Pulsating anterior fontanel

ANS: A

A mother describes what may be a type of seizure for her child. What subjective data will help you determine the type?

A. The presence or absence of an aura
B. If the child appeared disoriented after the seizure
C. The duration of the seizure
D. All of the above

ANS: D

As the nurse assigned to a child diagnosed with bacterial meningitis, you know that:

A. The child will not need to be placed in isolation because antibiotics have been started.
B. Enteric precautions will remain in place for up to 48 hours.
C. Respiratory isolation will remain in place for 24 hours after antibiotics are started.
D. Due to headache, the child will want the head of the bed elevated with two pillows.

ANS: C

What are the most appropriate nursing interventions for a child newly diagnosed with diabetes who is experiencing hypoglycemia?

A. Immediately administer cup of fruit juice or a glass of nonfat or 1% milk.
B. Check blood glucose after 15 minutes.
C. Give a starch-protein snack. To stabilize blood sugar
D. Give parents instructions regarding signs and symptoms of hypoglycemia versus hyperglycemia.
E. Teach parents how to administer intramuscular (IM) glucagon if unresponsive, unconscious, or seizing.
F. All of the above

ANS: F