

MCQs

Instruction:

1. Please use pencil to shade the box for the best and correct answer (only one answer for each question).
2. Send back the answer sheet (see loose leaf page) to the Hong Kong College of Paediatricians. One point will be awarded to each article if ≥ 3 of the 5 answers are correct. The total score of the 4 articles will be 4 CME points.

(A) Adolescents Who Underwent Thyroid Surgeries for Thyroid Cancers and Masses

1. Which of the following is wrong for differentiated thyroid cancer (DTC) in children?
 - a. Children with DTC present with extensive disease
 - b. Lymph node involvement at diagnosis is seen in 40-90% of patients
 - c. Distant metastasis occurs in 2% of cases
 - d. Distant metastasis most commonly affects the lung
 - e. Multifocal disease is seen in 40% of cases
2. Which of the following is not true for DTC in children?
 - a. Incidence of DTC in patients younger than 10 years is 1/1,000,000
 - b. Incidence of DTC in patients aged 10-14 years is 1/200,000
 - c. Incidence of DTC in patients aged 15-19 years is 1/75,000
 - d. Girls are four times more likely to have thyroid cancer than boys after puberty
 - e. Boys are two times more likely to have thyroid cancer than boys before puberty
3. Which of the following is wrong for thyroid cancer (TC) in children?
 - a. Papillary TC is seen in 60% of cases
 - b. Follicular variant papillary TC is seen in 35% of cases
 - c. Follicular TC is seen in 10% of cases
 - d. Medullary TC is seen in 5% of cases
 - e. Annual incidence increases by 1.1% per year
4. Which of the following risk factors does not indicate poor outcome in thyroid cancer?
 - a. Head and neck irradiation
 - b. Exposure to radioactive explosion
 - c. Treatment for cancer before 10 years of age
 - d. Thyroid hemigenesis
 - e. Hyroglossal cyst

5. Which of the following is not true for DTC in children?
 - a. Total thyroidectomy is the preferred operation
 - b. Neck dissection is done if lymph node metastasis are seen in imaging or during surgery
 - c. Radioactive iodine therapy is given after surgery
 - d. Levothyroxine therapy is not required after surgery
 - e. Undetectable thyroglobulin level indicates disease-free state

(B) BK Virus-associated Haemorrhagic Cystitis in Children Undergoing Allogeneic Haematopoietic Stem Cell Transplantation: A Single Institution Experience

1. Which is NOT the cause of haemorrhagic cystitis in haematopoietic stem cell transplantation recipient?
 - a. Chemotherapeutic agents
 - b. BK virus reactivation
 - c. Coagulopathy
 - d. *E. coli* sepsis
 - e. Severe thrombocytopenia
2. Which period does BK virus (BKV)-associated haemorrhagic cystitis occur?
 - a. Pre-transplant period
 - b. Post-engraftment period
 - c. Disease relapse period
 - d. Preconditioning chemotherapy
 - e. None of the above
3. Which of the following is NOT the primary treatment of BKV-associated haemorrhagic cystitis?
 - a. Hyperbaric oxygen
 - b. Acetylcysteine
 - c. Dosage reduction of cyclosporine
 - d. Fluoroquinolone
 - e. Cidofovir

4. Which of the following is a risk factor for haemorrhagic cystitis?
 - a. BKV viruria $\geq 10^7$ copies/mL
 - b. Older age
 - c. CMV reactivation
 - d. Foscarnet use
 - e. All of the above
5. According to the grading of BKV-associated haemorrhagic cystitis, macroscopic haematuria with clots should be graded as:
 - a. Grade I
 - b. Grade II
 - c. Grade III
 - d. Grade IV
 - e. None of the above

(C) The Effect of Sucrose on the Control of Pain Secondary to Retinopathy of Prematurity Screening: Randomised Controlled Trial

1. Which of the following is true?
 - a. Premature neonates do not feel pain because of immature brain development.
 - b. Inadequate pain relief does not cause permanent injuries for premature neonates because they cannot interpret painful experiences.
 - c. Neonates are more resistant to painful procedures than adults.
 - d. Inadequate pain relief may result in increased pain sensitivity over time
 - e. Pain may cause only short term harmful effects on neonates.
 2. Which of the following is not a minor painful intervention conducted in neonatal intensive care unit?
 - a. Heel lance
 - b. Venipuncture
 - c. Retinopathy of prematurity screening
 - d. Immunisation
 - e. Attachment and removal of EEG/ECHO
 3. Which of the following is not the indicator of premature infant pain profile (PIPP) scoring system?
 - a. Heart rate
 - b. Oxygen saturation
 - c. Saliva cortisol level
 - d. Gestational age
 - e. Eye squeeze
4. Which of the following recommendation has consensus on it?
 - a. Repeated lower doses of sucrose are more effective than single dose of sucrose for painful procedures.
 - b. Using pacifier with 0.1-0.4 ml 12%-24% sucrose for preterm infants is effective as pain relief for minor painful interventions.
 - c. Sucrose without combining other non-pharmacological methods is effective as pain relief during retinopathy of prematurity screening.
 - d. Sucrose has been demonstrated to be associated with long term neurodevelopmental side effects.
 - e. The presence and severity of pain occurring in neonates can be accurately determined.
 5. In this study;
 - a. Sucrose had negative effect on crying behaviour during retinopathy of prematurity screening.
 - b. Sucrose reduced PIPP scores during retinopathy of prematurity screening.
 - c. Sucrose had positive effect on objective parameters (heart rate, SpO₂) of pain.
 - d. Authors recommend sucrose in routine use of pain control during retinopathy of prematurity screening.
 - e. Sucrose did not have long term neurodevelopmental side effects.

(D) Red Blood Cell Distribution Width and Transient Tachypnoea of the Newborn

1. Which of the following clinical conditions is NOT associated with elevated Red blood cell distribution width (RDW) levels?
 - a. Pulmonary embolism in adult patients.
 - b. Sepsis in adult patients.
 - c. The prognosis in adult patients with acute myocardial infarction.
 - d. Pneumonia in adult patients.
 - e. Macrocytic anaemia in paediatric population.
2. Which of the following symptoms has been used for the diagnosis of tachypnoea of newborn (TTN)?
 - a. Rapid respiration (>60 bpm), grunting and retraction.
 - b. Oxygen requirement generally rise above 40%
 - c. Symptoms often last as long as five days.
 - d. The condition is more common in premature infants born by normal spontaneous delivery.
 - e. Symptoms occur after 24 hours after birth in infants.

3. Which of the following is the main limitation of this study?
- This study includes relatively scarce number of new-borns.
 - RDW requires additional cost and can not be checked from complete blood count.
 - A positive correlation was observed between RDW and gestational age.
 - TTN and control groups included those born before 36 weeks or those with low birth weight of <2,500 g.
 - Infants in this study are older than 24 hours.
4. Which of the following is NOT correct according to this study?
- Limited number of studies have compared some clinical conditions in new-borns and RDW values.
 - This study is the first to look into the relationship between TTN and RDW values.
 - In the TTN group, RDW were significantly higher than control group.
 - The difference in RDW value observed in neonates with or without TTN is statistically significant.
 - We thought that RDW value can be used in the early diagnosis of TTN.
5. Which of the following is NOT correct according to this study?
- RDW indicates heterogeneity of erythrocyte volume.
 - RDW is mainly used for the differential diagnosis of microcytic anaemia.
 - RDW routinely reported as a component of complete blood count.
 - There are limited data about relationship between RDW and newborn population.
 - RDW calculation requires additional cost.

Answers of April issue 2017

(A) 1. c; 2. a; 3. b; 4. c; 5. d

(B) 1. e; 2. a; 3. e; 4. e; 5. b

(C) 1. e; 2. b; 3. d; 4. d; 5. e

(D) 1. c; 2. a; 3. a; 4. b; 5. e