

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) The Beneficial Effects of Breathing and Relaxation Exercises on Psychological Status, Sleep, and Quality of Life in Children and Caregivers of Children with Cystic Fibrosis

1. What was the primary focus of the study described in the introduction?
 - a. To examine the effects of breathing and relaxation techniques on the health outcomes of patients with cystic fibrosis
 - b. To evaluate the prevalence of sleep disorders in patients with cystic fibrosis
 - c. To compare the quality of life between patients with cystic fibrosis and healthy individuals
 - d. To investigate the impact of diet and exercise on lung function in patients with cystic fibrosis
 - e. To explore the potential benefits of psychological interventions on the mental health of patients with cystic fibrosis
2. What are some of the psychological symptoms that both children and their caregivers with cystic fibrosis (CF) are at risk of developing according to the provided article?
 - a. Anxiety and depression
 - b. Bipolar disorder and psychosis
 - c. Schizophrenia and dissociative disorders
 - d. Antisocial personality disorder and obsessive-compulsive disorder
 - e. Autism spectrum disorders
3. Which of the following psychological symptoms showed significant improvement in parents of children with CF after the breathing and relaxation training?
 - a. Depression
 - b. Anxiety
 - c. Both a and b
 - d. Neither a nor b
 - e. Both a and b, as well as sleep quality and life satisfaction
4. What future studies are suggested based on the findings of this research?
 - a. Investigating the effects of a longer duration of the intervention
 - b. Exploring the effects of breathing and relaxation techniques on other chronic diseases
 - c. Conducting a randomised controlled trial or a waiting-list control group design
 - d. All of the above
 - e. None of the above
5. What were the main findings regarding the impact of the breathing and relaxation training on children's and parents' quality of life and psychological well-being?
 - a. Significant improvements parents' quality of life and psychological well-being and limited domain of children's quality of life
 - b. No significant changes in children's and parents' quality of life and psychological well-being
 - c. Significant improvements in parents' quality of life and psychological well-being, but not in children's
 - d. Significant improvements in children's quality of life and psychological well-being, but not in parents'
 - e. There is not enough information to draw a conclusion about the impact on either children or parents.

(B) Mitochondrial *m.1555A>G* Mutation, Prevalence and Clinical Features in a Hong Kong Chinese Cohort

1. Mitochondrial *m.1555A>G* mutation is associated with hearing loss induced by which of the following agent?
 - a. Phototherapy
 - b. Meningococcus
 - c. Head injury
 - d. Syphilis
 - e. Aminoglycosides

2. What is the typical age of onset for patients with *m.1555A>G* mutation?
 - a. Variable age of onset
 - b. Congenital
 - c. Neonatal
 - d. Infantile
 - e. Senile
3. Which of the following describes true characteristics of hearing loss due to *m.1555A>G* mutation?
 - a. Full penetrance
 - b. Invariable expressivity
 - c. Half penetrance
 - d. Incomplete penetrance and variable expressivity
 - e. Full penetrance but variable expressivity
4. At what severity of hearing loss will *m.1555A>G* mutation carriers likely to suffer from?
 - a. Normal hearing
 - b. Mild grade
 - c. Moderate grade
 - d. Profound grade
 - e. All of the above
5. Which of the following is the most common genetic cause of non-syndromic hearing loss?
 - a. Mitochondrial *m.1555A>G* mutation
 - b. Autosomal recessive condition due to variants in *GJB2* gene
 - c. Pendred syndrome
 - d. Connexin 30 variants
 - e. CHARGE syndrome
3. Are reference values for fecal calprotectin precisely defined in the neonatal population?
 - a. They are not, because they show large inter- and intra-individual variations due to the influence of perinatal factors
 - b. Are precisely defined, with small individual variations
 - c. They are and are less compared to those in the adult population
 - d. Are defined according to the body weight and gestational age of the newborn
 - e. Are defined according to gender, age and race
4. What affects the diagnostic efficiency of faecal calprotectin in the neonatal population?
 - a. Extraction methodology
 - b. Performance of the kit for its determination
 - c. Food intolerance
 - d. Administration of certain drugs
 - e. All of the above
5. What is the most commonly used test for detection of faecal calprotectin?
 - a. Enzyme-linked immunosorbent assays
 - b. Polymerase chain reaction
 - c. Western blotting
 - d. Oral Glucose Tolerance Test
 - e. Radioimmunoassay

(D) The Effects of Early Enteral Nutrition on the Prognosis of Children with Biliary Atresia After the Kasai Procedure

- (C) Correlation of Prenatal and Perinatal Factors with Meconial Calprotectin in Preterm and Healthy-term Newborns**
1. What secretes calprotectin?
 - a. Lymphocytes
 - b. Monocytes
 - c. Eosinophils
 - d. Neutrophils
 - e. Platelets
 2. What does a high faecal calprotectin level at birth indicate?
 - a. Congenital megacolon or Hirschsprung's disease
 - b. Inflammation or distress of the intestinal tract
 - c. Congenital intestinal malrotation
 - d. Infantile hypertrophic stenosis of the pylorus
 - e. Duodenal atresia
 1. What is the incidence of biliary atresia in newborns?
 - a. 1/1000-1/1500
 - b. 1/10000-1/15000
 - c. 1/15000-1/20000
 - d. 1/100000-1/150000
 - e. 1/150000-1/200000
 2. Which of the following region is biliary atresia most common?
 - a. European
 - b. Southeast Asia
 - c. North America
 - d. South America
 - e. The Middle East

3. Which of the following(s) is/are the clinical manifestation(s) of biliary atresia?
- Chest infection
 - Fever
 - Persistent jaundice with white stool
 - Skin and soft tissue infection
 - All of the above
4. Which of the following(s) is/are the predisposing risk factor(s) to biliary atresia?
- Malignancy
 - Post-transplant
 - Primary immunodeficiency
 - Genetic, immune to viral infection
 - All of the above
5. Which of the following approach is the treatment for biliary atresia
- Antiviral Treatment
 - Rehabilitation Therapy
 - Hormonotherapy
 - Radiation or chemotherapy
 - Kasai Portoenterostomy or liver transplantation

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

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

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

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