# منهج ماجستير طب الأطفال

### **Growth and development**

#### **Nutrition and malnutrition**

### Electrolyte and acid base balance

<u>Children with special health needs:</u> mental retardation, failure to thrive, acutely ill child

#### Rheumatic diseases:

- Suspected Rheumatic Disease.

- Juvenile Rheumatoid Arthritis.

- Postinfectious Arthritis. Erythematosus.

- Systemic Lupus

- Vasculitis Syndromes. scleroderma.

- Dermatomyositis and

## Immunologic diseases:

- Cellular immunodeficiency.

- Humoral immunodeficiency.

- combined immunodeficiency.

- Neutropenia and esinophilia.

- General principles of BM transplantation.

### **Allergic diseases:**

- Bronchial asthma.

- Atopic dermatitis.

- urtecaria, anaphylacsis. drugs.

- Adverse reaction to food &

#### Metabolic diseases:

- Glycogen storage disease.

- Galactosamia and fructosemia.

- Aminoacidopathies: phenyleketonuria

phenyleketonuria, tyrosinemia, cysteine and

tryptophan.

- Lipid storage diseases.

- Lactic acidosis.

- Hypercholesterolemia. .

- Mucopolysaccharidoses.

#### Infectious diseases:

- Infection control and immunization.

- Pyrexia of unknown origin.

- Inf. in immunocompromised

- Sepsis. - I patient - Bacterial infections:-

Gram positive: staph, strept, pneumococci, diphtheria

Gram negative: meningococci, H influenza, pertussus, salmonella, shigella, E coli, cholera, cambylobacter, pseudomonous, brucella Anerobic infections: botulism, tetanus, pseudomembranous colitis

TB, mycoplasma, clamidia

- Viral infections: antiviral therapy, measles, rubella, mumps
Enteroviruses, parvovirus B19, herpes simplex & zoster, roseola infantum,
EBV, CMV, RSV, rotavirus, rabies

- Mycotic infections: candida, histoplasmosis, blastomycosis.

- Protozoan diseases: amebiasis, giardiasis, cryptosporidium,

toxoplasma, liver flucks, tinea, echinicoccus.

- D.D. of maculopapular rash and papulovesicular rash

#### Skin diseases

- Ectodermal dysplasia. lesions.

- Vesiculobollus lesions.

- Hyper- and hypopigmented

- Nutritional dermatosis.

#### Bone diseases:

- metabolic bone diseases.
- Arthritis & oseomyelitis.
- oseopetrosis. imperfect

#### - Achondroplsia.

- Marfan & osteogenesis

### Pediatric Emergency medicine.

- Dyspnea & Respiratory distress.
- Foreign body inhalation.
- Croup syndromes.
- Hypercyanotic spells.
- Acute Heart failure.
- Convulsions...
- CNS infections.
- Acute hemolytic anemias.
- Envenomination.
- Food and drug poisoning.
- Anuria, oliquria, urine retention.
- Absolute constipation.
- Hepatic cell failure.
- Acute abdomen.

## Pediatric Gastroenterology & Hepatology.

- DD of gastrointestinal symptoms: anorexia, vomiting, abdominal distention, abdominal pain, GIT bleeding, intestinal obstruction
- Common lesions of the oral cavity
- Acute and chronic diarrhea
- Malabsorptive disorders
- Inflammatory bowel disease
- GERD and congenital hypertrophic pyloric stenosis
- Acute and chronic hepatitis
- Fulminant hepatic failure
- Cholestasis in infancy period
- Liver cirrhosis
- Portal hypertension
- Ascites and peritonitis
- Acute pancreatitis.

## Pediatric Nephrology and Urology medicine.

- D.D. of proteinurea & nephritic syndrome
- D.D. of hematurea & Glomerulonephritis
- Acute renal failure.
- Chronic renal failure.
- Vesicoureteric reflux.
- Urinary tract infections
- Congenital anomalies of kidneys and ureters
- Proximal and distal tubular acidosis

### Pediatric Neurology & Psychology.

- Cerebral Palsy.
- Motor deficit (hemiplegia, paraplegia, quadriplegia) & stroke
- Motor neuron disease and neuromuscular junction
- Muscle diseases.
- Peripheral neuropathy.
- Epilepsy & condition that mimic epilepsy.
- Headache.
- Enuresis.
- Neurodegenerative and neurometabolic diseases (sphingolipidosis).
- Increased intra cranial pressure.
- Neuro cutanious syndromes.
- Movement disorders.
- Vegetative Disorders: Eating & Elimination disorders.
- Habit & Tic disorders
- Eating Disorders: Anorexia nervosa, Bulimia & Bing Eating
- Pervasive developmental disorders: Autistic disorders.
- Attention deficit hyperactivity disorders.

## Pediatric Hematology & Oncology

- Anemia & pancytopenia.
- Neutropenia. leucocytosis.
- Bleeding and coagulation disorders.
- Hematological malignancies.
- Solid tumors (Wilm's, neuroblastoma, brain tumors).
- Lymphadenopathy & Splenomegaly.
- Blood transfusions

### Pediatric Cardiology.

- Congenital heart disease with left to right shunt.
- Acyanotic congenital heart disease.
- Cyanotic heart disease with increased pulmonary blood flow.
- Cyanotic heart disease with restricted pulmonary blood flow.
- Pediatric cardiac dysrhythmias & sudden death.
- Rheumatic fever &Chronic valvular rheumatic heart disease.
- Cardiomyopathy.
- Infective endocarditis.

- Pericardial effusion.
- Care of children with cardiac invasive operations in the perioperative period.

### Pediatric Pulmonology & TB.

- Chronic or recurrent cough.
- Croup syndromes.
- Wheezy chest.
- Emphysema and over inflation.
- Aspiration syndromes.
- Pneumonia (viral or bacterial).
- Bronchiectasis, pulmonary abscess.
- Interstitial lung diseases.
- Atelectasis.
- Pleural diseases.
- Pulmonary edema.
- Bronchopulmonary dysplasia.

### Pediatric Endocrinology.

- Short stature.
- Obesity.
- Polyurea and polydepsia.
- hypo- and hyperpituitrism.
- Hypo- and hyperglycemia.
- Hypo- and hyperthyroidism.
- Hypo- and hypercalcemia
- Hypo- and hyperadrenocorticism.
- Delayed and precocious puberty.

#### Pediatric Intermediate care & Intensive care medicine.

- Respiratory failure.
- Status epilepticus.
- Status asthmaticus.
- Encephalpathy & coma (hepatic, uremic. hypertensive,....).
- Cardiogenic shock.
- Septic shock.
- Metabolic and acid base disorders.
- DKA
- Indications and complications of ventilation.

#### 11. Neonatal and Neonatal Intensive care medicine.

- High risk fetus & infants ( multiple gestations, prematurity, IUGR, postterm, large for gestational age).
- Respiratory disorders (apnea, RDS, TTN, aspiration pneumonia, meconium aspiration syndrome, air leak syndrome, diaphragmatic hernia, & TOF).

- Jaundice and kernictrus.
- NEC.
- Anemia, hemolytic disease of the newborn, bleeding of the newborn, polycythemia, thrombocytopenia).
- Hypoglycemia, IDM.
- Neonatal sepsis.
- Intrauterine infections.
- HIE and neonatal seizures.

## القواعد المنظمة لامتحان ماجستير طب الأطفال

## أولا الامتحان النظرى:

1) يتم امتحان منهج طب الأطفال النظرى فى ثلاث ورقات تقيم ب 280 درحة

## \* الورقة الأولى تقيم بـ 95 درجة وتشمل:

- 1- Cardiovascular system ( من الأسئلة )
- 2- Respiratory system + TB (من الأسئلة 20%)
- 3- Diseases of the blood (من الأسئلة )
- 4- Neoplastic diseases and tumors (من الأسئلة 10%)
- 5- Nervous system, psychiatric diseases, neuromuscular disorders (من الأسئلة) 30%)

## \* الورقة الثانية تقيم ب-95 درجة وتشمل:

- 1- Digestive system, Nutrition. ( من الأسئلة % 25 % من الأسئلة )
- 2- Immunology, allergy and rheumatology ( من الأسئلة ) 20%)
- 3- Nephrology & urology ( من الأسئلة )
- 4- Metabolic diseases ( من الأسئلة ) 20%)
- 5- Skin and bone diseases ( من الأسئلة )

## \*الورقة الثالثة تقيم بـ 90 درجة وتشمل:

- 1- Neonatology ( من الأسئلة )
- 2- Infectious diseases prevention ( من الأسئلة )
- 3- Critically ill child children with special health needs (من الأ) 20%)
- 4- Fluid, acid/base and electrolyte imbalance ( من الأسئلة )
- 5- Poisoning & environmental health hazards ( منَ الأسئلة )
- 6- Endocrine system (من الأسئلة 15%)

## - تحتوى كل ورقة إمتحانية على أسئلة :

Short essay فى حدود الثلث MCQ, matching, case scenario فى حدود الثلث Problem solving فى حدود الثلث

\* مع تغطية كافة أجزاء المنهج والمخرجات التعليمية المستهدفة

ثانيا: الامتحان الإكلينيكي ويقيم بـ 420 درجة

1- حاله طويلة (150 درجة) يخصص لها ساعة ثم يتم مناقشة الطالب فى:-

History, examination, diagnosis and differential diagnosis, ordering investigations and treatment

2- 3 حالات قصيرة (150 درجة) يحدد فى كل حالة المطلوب من تاريخ المرض والفحص الاكلينكى ويؤديه الطالب أمام لجنة الممتحنين ويخصص جزء من الدرجة لتقييم:Attitude and communication skills - counseling

3- امتحان OSCE (90 درجة ) يشتمل على:-

X-rays, CT brain, lab report, Blood gas, ECG, Photos

مع اسئلة موضوعية عليها

4 – تقييم كتاب الأنشطة (30 درجة )

## Curriculum of Paper 1

### **Pediatric Cardiology**

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- Cyanotic heart disease with increased pulmonary blood flow.
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- Habit & Tic disorders
- Eating Disorders: Anorexia nervosa, Bulimia & Bing Eating
- Pervasive developmental disorders: Autistic disorders.
- Attention deficit hyperactivity disorders.

## Curriculum of Paper 2

### Pediatric Gastroenterology & Hepatology.

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- Malabsorptive disorders
- Inflammatory bowel disease
- GERD and congenital hypertrophic pyloric stenosis
- Acute and chronic hepatitis
- Fulminant hepatic failure
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### Allergic diseases:

- Bronchial asthma. - Atopic dermatitis.

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 Adverse reaction to food & drugs.

### Metabolic diseases:

- Glycogen storage disease. - Galactosamia and fructosemia.

- Aminoacidopathies: phenyleketonuria, tyrosinemia, cysteine and tryptophan.

- Lipid storage diseases. - Lactic acidosis.

- Hypercholesterolemia. . - Mucopolysaccharidoses.

### Skin diseases

- Ectodermal dysplasia. - Hyper- and hypopigmented lesions.

- Vesiculobollus lesions.

- Nutritional dermatosis.

### Bone diseases:

- Metabolic bone diseases.
- Arthritis & oseomyelitis.
- oseopetrosis. imperfecta

- Achondroplsia.Marfan & osteogenesis

## Curriculum of Paper 3

### Neonatal and Neonatal Intensive care medicine:

- High risk fetus & infants ( multiple gestations, prematurity, IUGR, post-term, large for gestational age).
- Respiratory disorders (apnea, RDS, TTN, aspiration pneumonia, meconium aspiration syndrome, air leak syndrome, diaphragmatic hernia, & TOF).
- Jaundice and kernictrus.
- NEC.
- Anemia, hemolytic disease of the newborn, bleeding of the newborn, polycythemia, thrombocytopenia).
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- Hypo- and hyperglycemia.
- Hypo- and hyperthyroidism.
- Hypo- and hypercalcemia
- Hypo- and hyperadrenocorticism.
- Delayed and precocious puberty

## Electrolyte and acid base balance

### Children with special health needs:

- mental retardation, failure to thrive,
- acutely ill child
- Septic shock.
- Indications and complications of ventilation.

#### Infectious diseases:

- Infection control and immunization.
- Sepsis
- Bacterial infections:-
- Gram positive : staph, strept, pneumococci, diphtheria
- Gram negative: meningococci, H influenza, pertussus, salmonella, shigella, E coli, cholera, cambylobacter, pseudomonous, brucella
- Anerobic infections: botulism, tetanus, pseudomembranous colitis
- TB, mycoplasma, clamidia
- Viral infections: antiviral therapy, measles, rubella, mumps
- Enteroviruses, parvovirus B19, herpes simplex & zoster, roseola infantum, EBV, CMV, RSV, rotavirus, rabies
- Mycotic infections: candida, histoplasmosis, blastomycosis.
- Protozoan diseases: amebiasis, giardiasis, cryptosporidium, toxoplasma, liver flucks, tinea, echinicoccus.
- D.D. of maculopapular rash and papulovesicular rash
- Pyrexia of unknown origin.
- Inf. in immunocompromised patient

## Poisoning & environmental health hazards

- Lead and iron entoxication
- Organophosphorus poisoning
- Salycilate and paracetamol poisoning
- Scorpion and snake bites