

Module Title	Paediatrics and Child Health Surveillance				
Module Code	FMED-532				
Module Type	Required				
Level	2 nd Cycle				
Year / Semester	1 / 2				
Teacher's Name	Prof Nikos Skordis Dr Leda Theophilou				
ECTS Credits	7.5	Lectures	27	Interactive learning activities	17
Module Purpose and Objectives	<p>The main objectives of the module are to:</p> <p>Communication skills with children and adolescents</p> <ul style="list-style-type: none"> • Develop and apply primary care consultation techniques to bring about an effective doctor-patient-family relationship. • Enable parents or carers, children and young people to be routinely involved and supported in making informed Decisions and choices about care, taking into account age and development, increasing autonomy with age and the need for confidentiality, balanced with parents' need for information. • Describe how to modify language levels to suit a clinical task. • Synthesize an appropriate diagnosis and treatment plan for common paediatric conditions in both the outpatient and in-patient settings. • Provide information on medicines in a clear, jargon-free way appropriate to their understanding as children, young people and parents. • Apply supportive attitude towards children with a chronic disease and their families and be an effective member of the multidisciplinary team. • Demonstrate attitudes that encompass promotion of healthy lifestyles for children and families. • Apply consent and ethical issues to the family situation. • Recognise his or her own practice limitations and seek consultation with other health care professionals and resources when necessary to provide optimal patient care. • Recognise the importance of educating the public about environmental factors that can adversely affect children and developing community programs to promote the health of children. • Explain the importance of obtaining and utilizing information about school performance and learning disabilities in order to assist in the creation of a management plan. <p>Immunisations</p> <ul style="list-style-type: none"> • List the current UK routine immunisation schedule. • List vaccinations that need to be given to at risk groups. • Describe the public health importance of immunisation, including the global context. • Identify the true and false contraindications to immunisation. 				



Paediatric Gastroenterology

- Describe the symptoms of gastrointestinal problems in children.
- List systemic diseases that commonly have gastro-intestinal manifestations in children.
- Outline the clinical features, investigation and management of children with coeliac disease.
- Define GOR (Gastroesophageal reflux).
- Distinguish between possetting, vomiting and GOR.
- Outline the investigation and management of a child thought to have GOR.
- Outline the epidemiology of IBD (Inflammatory Bowel Disease) in children.
- Describe the presentation of IBD in children.
- Outline the investigations and types of treatment for IBD.
- List the common organisms causing gastroenteritis in children.
- Describe the clinical features and effects of gastroenteritis in children.
- Describe the assessment and management of gastroenteritis in children.
- Describe the pathophysiology of the gastrointestinal problems in children (Assumed prior knowledge).
- Discuss why fluid and nutritional requirements differ from those in adults (Assumed prior knowledge).
- Describe the pathophysiology of coeliac disease (Assumed prior knowledge).

Child and adolescent psychiatry, ADHD, autism

- Describe the features of autistic spectrum disorders in children.
- Outline the strategies used in the management of autistic spectrum disorders in children.
- Define ADHD.
- Describe the presentation of ADHD.
- List the associations of these conditions.
- Define primary and secondary enuresis.
- List the common causes of primary and secondary enuresis.
- Describe the investigation of a child with enuresis.
- Outline the management of enuresis.
- Define encopresis.
- List common causes of encopresis.
- Outline the management of encopresis.
- Describe common sleep disorders in children.
- Define school refusal.
- Discuss the common causes of school refusal.
- Outline the management of school refusal.
- Outline a management plan for children after a suicide attempt.
- Discuss an infant's, a child's and an adolescent's response to hospital admission.
- Discuss an infant's, a child's and an adolescent's response to chronic illness.
- Discuss the effect of a child's chronic illness on the family.



***Adolescent medicine and eating disorders, drug use & sexuality/
gender identity***

- Outline the risk factors, diagnosis and management of eating disorders in adolescents.
- Describe adolescent screening for risk-taking behaviours, sexual activity and psychiatric disorders.
- Discuss issues relating to gender identity and support channels for the adolescent and family.

The Limping child and other orthopaedic problems

- Normal Gait Pattern in childhood and abnormal patterns.
- Congenital Dislocation of the Hip (risk factors, clinical presentation, investigation and treatment).
- List the risk factors for congenital dislocation of the hip (CDH).
- Describe the presentation of CDH in the neonatal period and later.
- Outline the treatment options for CDH.
- Define the different forms of talipes and outline its management.
- Describe neural tube defects.
- Outline the postnatal effects and interventions for spina bifida.
- Describe the presentation, management and differential diagnosis of a child with swollen joint(s).
- Outline the management of osteomyelitis and septic arthritis.
- Principles of trauma management in children.
- Discuss the differences in the adult, infant and child proportions (Assumed prior knowledge).
- Describe the differences in the composition, structure, performance and radiological appearance of the bones between these age groups (Assumed prior knowledge).

Common ENT conditions in children

- List the causative organisms for otitis media.
- Discuss the role of antibiotics in the management of childhood otitis media.
- Outline the complications of otitis media.
- List the causative organisms for tonsillitis.
- Discuss the role of antibiotics in the management of childhood tonsillitis.
- Discuss the surgical options for recurrent common childhood ENT problems (e.g. tonsillitis, glue ear, sleepapnoea).

Paediatric Dermatology

- Describe the commonest childhood rashes, their differential diagnosis and their management.
- List the common causes of nappy rash.
- Describe the differences between each nappy rash and the treatment of each type.
- List the common birth marks.
- For each common birth mark, describe the clinical course and any associated problems in other systems.



- Describe milia, miliaria, erythema toxicum neonatorum, capillary and cavernous haemangiomas, their course and any treatment that is appropriate.

The Febrile and Unwell Child

- Describe clinical features of the acutely unwell child including fever, rashes, irritability, breathing and circulatory signs.
- Describe the investigation and management of the febrile child, including differential diagnosis.
- List common causes of fever in children at different ages.
- Describe the presentation of Kawasaki disease.

Neonatology

- List the risk factors for preterm delivery.
- Define prematurity and state the incidence of prematurity.
- Describe the long-term outlook for those born very premature.
- Describe the effects of labour and mode of delivery on the mother and infant.
- List and group the common causes of jaundice in the neonatal period.
- Describe a plan for assessing, investigating and managing jaundiced infants.
- Discuss the importance of addressing parental response to a critically ill infant.
- List the risk factors and causes of hypoglycaemia in the neonate.
- Outline the management of an infant with a low blood sugar.
- List the common congenital infections.
- Describe the common features of congenital infections.
- Describe common birthmarks, neonatal rashes and birth-related injuries and their management.

Developmental milestones

- List the developmental milestones by age.
- Define developmental delay.
- Outline different patterns of developmental delay and how they can be investigated.
- Describe how developmental delay can be managed by key members of the MDT.
- Discuss the interventions that can be used in children with special needs.
- Outline approaches to interviewing parents of children with special needs.
- List the common causes for language delay.
- Describe the interventions for language delay.
- List the normal primitive reflexes and when they should disappear (Assumed prior knowledge).
- Define 'special needs' (Assumed prior knowledge).

Paediatric Neurology

- Outline the association between neurological problems and congenital



syndromes.

- Discuss the impact on the family of a child with a neurological problem.
- Describe the prevalence of seizures, CP, Down's syndrome.
- Give a differential diagnosis for febrile convulsions and how to distinguish between them.
- Describe the features of a typical febrile convulsion.
- Outline the theories about the causes of febrile convulsions.
- Discuss management strategies for febrile convulsions in the acute and longer-term settings.
- Discuss the management of status epilepticus.
- List the major groups and causes of cerebral palsy.
- Define cerebral palsy.
- Discuss problems associated with cerebral palsy.
- Outline strategies used in the management of cerebral palsy.
- List and describe the different types of convulsions seen in children.
- Outline the management of the major types of childhood convulsive disorders.
- Discuss the management of febrile convulsions.
- Discuss the clinical features of migraine in children and the differences with adults.
- Outline the management of migraine in children.
- List the clinical features and describe the presentation of muscular dystrophy.
- Outline the epidemiology of cerebral palsy (Assumed prior knowledge).
- Describe the epidemiology of convulsive disorders in children (Assumed prior knowledge).

Paediatric Nephrology

- Describe the symptoms of urinary tract or renal disease in children.
- Describe the purpose, process and uses of ultrasound, DMSA, MAG3, MCUG and IVU in a child.
- Summarise the statistics of UTI and renal failure in children.
- List the common causes (structural and bacteriological) of UTIs in children.
- Discuss the use of different methods of urine collection and their interpretation in infants and children.
- Outline the use of the various investigations for UTIs in children of different ages.
- Outline the use of prophylactic antibiotics in children with UTIs.
- List the complications of nephrotic syndrome in children.
- Outline the management of nephrotic syndrome in children.
- List the causes of acute renal failure in children.
- Describe the clinical features of acute renal failure in children.
- Outline management strategies for children with acute renal failure.
- Describe how normal blood pressure varies with age in an infant, child and adolescent (Assumed prior knowledge).
- Discuss the differences in renal function between an infant and an adult (Assumed prior knowledge).



Abdominal pain in children & surgical emergencies

- Outline the management plan for cleft lip or palate.
- Describe the normal course and timing of testicular descent.
- Outline the problems of having undescended testes.
- List the common causes of the acute abdomen in children and infants.
- Describe the clinical features of children with acute abdomen and infants.
- Outline the role of investigations and surgery in the acute abdomen in children and infants.
- Discuss why hernias are managed differently in children than in adults.
- Describe the presentation of intussusception.
- Outline the use of investigations in suspected intussusception.
- Describe the presentation of Hirschsprung's disease.
- Outline the management of Hirschsprung's disease.
- Describe the presentation of pyloric stenosis including biochemical abnormalities.
- Outline the management of pyloric stenosis.

Ophthalmology for Paediatricians

- List the common causes of squint.
- Describe how squints are picked-up in children.
- Distinguish between paralytic and non-paralytic squints and the implications for diagnosis.
- Outline the investigation and management of squint.
- Outline how amblyopia develops.
- Describe the pathophysiology of intussusception (Assumed prior knowledge).
- Describe the pathophysiology of Hirschsprung's disease (Assumed prior knowledge).
- Outline the epidemiology of pyloric stenosis (Assumed prior knowledge).
- Describe the pathophysiology of pyloric stenosis (Assumed prior knowledge).

Childhood allergies

- Discuss the possible causes for the increase in allergies in recent years (Hygiene Hypothesis).
- Describe the typical presentation of eczema at different ages.
- Explain practical management of childhood eczema to a parent.
- List common agents that may cause an allergy in children.
- Describe the different presentations of allergy in children.
- Diagnosis and investigations of allergies in children (skin tests, blood tests, etc).
- Outline the long-term management of allergy in children.
- Demonstrate the presentation and management of acute anaphylaxis in children.
- Definition of IgE/ non-IgE mediated allergy (Assumed prior knowledge).
- Describe the types of allergic diseases (allergic rhinitis, asthma, eczema, food allergies) (Assumed prior knowledge).



- Clinical presentation of allergic diseases (Assumed prior knowledge).

Childhood safeguarding issues

- Demonstrate an awareness of unique vulnerabilities of infants and children.
- List the risk factors for SIDS.
- Describe the investigation of a case of SIDS.
- Define the different types of child abuse.
- Describe the different presentations of child abuse.
- List the risk factors for child abuse.
- List the plan of investigation for suspected non-accidental injury or child sexual abuse.
- Outline the legal provisions useful in child abuse.
- Outline the immediate management of NAI.
- Discuss the role of parental consent in the context of NAI.
- Define Munchausen by proxy.
- Define common presentation and suspicious features that might suggest Munchausen's by Proxy.

Breastfeeding and feeding problems at birth

- Describe common feeding problems in the neonatal period and their management.
- Describe common problems with breastfeeding in their management (mastitis, poor baby positioning, inadequate production).
- Outline the management plan for cleft lip or palate.
- List the differences in breast and formula milk (Assumed prior knowledge).
- Describe the pathophysiology of breastmilk production and delivery (let down reflex) during breastfeeding (Assumed prior knowledge).

Childhood diabetes

- Describe the presentation of diabetes in childhood.
- Describe the diagnosis of diabetes in childhood.
- Describe the different treatment regimes for diabetes in childhood.
- Describe the common complications of diabetes in children and adolescents.
- Describe ways to increase diabetic control and compliance with treatment in children and adolescents.
- Outline the diagnosis and management of Diabetic Ketoacidosis (DKA).
- Discuss particular problems faced by children and adolescents with diabetes and the role of the Multidisciplinary team.
- Define the pathophysiology of diabetes (Assumed prior knowledge).

Management of asthma and other respiratory diseases in childhood

- Discuss the differences in presentation of asthma at different ages.
- Outline the management of chronic asthma in children in the community with reference to the different drug delivery devices and the mode of action of different agents.



- Describe the emergency management of severe asthma in children.
- Outline ways in which adherence to asthma treatment might be achieved.
- Outline the management themes of infants with bronchiolitis.
- Outline management strategies for children with pneumonia.
- Outline the investigation and management of aspirational lung injury.
- Discuss the important differences in anatomy and physiology between adults and children that affect the lungs, chest wall and respiratory drive (Assumed prior knowledge).
- Describe the symptoms of respiratory problems in children and their pathophysiology (Assumed prior knowledge).
- Discuss the differences in presentation of children and adults with respiratory disease (Assumed prior knowledge).
- List the organisms responsible for bronchiolitis (Assumed prior knowledge).
- Describe the presentation of bronchiolitis (Assumed prior knowledge).
- List the common organisms responsible for pneumonia in children of different ages (Assumed prior knowledge).
- List the organisms responsible for croup (Assumed prior knowledge).

Infectious diseases in childhood

- List the common bacteria that affect children of various ages.
- Describe the common staphylococcal and streptococcal infections in children.
- Describe the treatment of common staphylococcal and streptococcal infections in children.
- Describe the clinical features of meningitis at each age.
- Outline the clinical features of Henoch-Schonlein Purpura.
- List the complications of HSP.
- List the common organisms causing meningitis at different ages.
- Discuss the role of LP and CT in the management of meningitis.
- Discuss the acute and long-term management of meningitis.
- Describe the clinical features of septicaemia (meningococcal and other causes).
- Outline the management of children with septicaemia.
- Discuss the role of prophylaxis in contacts of children with septicaemia.
- Describe the ways of making an HIV or AIDS diagnosis in children.
- Explore the ethical implication of HIV testing in a child.
- Discuss the management of HIV/ AIDS in children.
- Describe the presentations of AIDs in children.
- Describe the clinical features of chickenpox in children.
- Distinguish between the following: varicella zoster, herpes zoster, varicella herpetiformis, eczema herpeticum.
- Describe the complications of chickenpox in children.
- Identify groups at risk of chickenpox.
- Describe the different manifestations of pertussis and complications that may occur.
- Outline the investigation and treatment of children affected with pertussis.
- List the features of measles, mumps and rubella and their complications.



- Describe how the presentation of TB differs in children compared to adults.
- Outline the manifestations of EBV in children.
- Outline the manifestations of CMV in children and neonates.
- Describe the general symptoms of infections and immunity problems in children (Assumed prior knowledge).
- Explain why neonates and children are particularly susceptible to infections (Assumed prior knowledge).
- Discuss the pathogenesis of septic shock and DIC in children with septicaemia (Assumed prior knowledge).
- List the modes of transmission to a child of the HIV virus and possible preventative strategies (Assumed prior knowledge).

Paediatric Endocrinology- thyroid, CAH, ambiguous genitalia

- Describe the aetiologies of hypothyroidism in children.
- Describe the clinical features and effects of hypothyroidism in children.
- Outline the management of children with hypothyroidism.
- List the causes of growth hormone deficiency.
- Describe the features in a child affected by growth hormone deficiency.
- Outline the assessment and treatment of a child with growth hormone deficiency.
- Describe the clinical and biochemical features of rickets in children.
- Outline the investigation and treatment of rickets in children.
- Outline the biosynthetic pathways of adrenal steroid hormones.
- Describe the hormonal interactions involving the pituitary and adrenal gland.
- Describe the clinical features of CAH.
- Outline the investigation and management of an infant with ambiguous genitalia.
- Define inborn errors of metabolism.
- Provide an overview of typical presentations and biochemical abnormalities of the commonest inborn errors of metabolism.

Pubertal disorders

- List the common causes of delayed and precocious puberty.
- Describe the assessment of a child affected by delayed or precocious puberty including clinical and endocrine features.
- Outline the management steps in affected children.

Genetics – family tree, chromosomal disorders

- List the common conditions (genetic, chromosomal and non-chromosomal) that cause dysmorphism in infants.
- Assess systematically the infant who is dysmorphic.
- Describe ways of communication with parents after the birth of a dysmorphic child.
- Outline the prevalence of Down's syndrome.
- List the features of Down's in the fetus, the neonate and the older child.
- List common associations with Down's syndrome.



- Outline a strategy for the long-term management of Down's syndrome.
- List risk factors for Down's Syndrome (Assumed prior knowledge).

Paediatric haematology, malignancies and immunodeficiency

- List the 10 warning signs of primary immunodeficiency.
- Distinguish between primary immunodeficiency and secondary immunodeficiency.
- Outline the immune defects and resulting effects in severe combined immune deficiency, chronic granulomatous disease, cyclical neutropenia, pancytopenia and viral infection.
- List the risk factors for iron deficiency anaemia in children.
- Advise a parents about dietary modifications to prevent iron deficiency in children.
- Describe the presentation of iron deficiency in children.
- Discuss the benefits and problems with screening for sickle cell disease in children.
- Outline the different presentations of SCD in children.
- Describe the long-term complications of the disease (SCD) and its treatment.
- List and describe the common haemoglobinopathies and their typical presentations in children.
- Outline the prevalence of malignancy in children.
- Outline the diagnosis of Acute Lymphoblastic Leukaemia, Wilm's and Neuroblastoma in children.
- Identify a range of community-based resources and agencies relevant to patients with cancer and their families.
- Describe the presentation of acute lymphoblastic leukaemia.
- Describe the typical blood count in acute lymphoblastic leukaemia.
- Outline in initial management of ALL.
- Describe the presentation of Wilm's tumour.
- Describe the presentation of neuroblastoma.
- Describe the differences between an infant's and an adult's immune system (Assumed prior knowledge).

Normal growth and development

- Discuss the investigation and management of a child who is growth faltering.
- Discuss the investigation and management of a child with short stature.
- Describe the endocrine control of growth (Assumed prior knowledge).
- Demonstrate competency in plotting measurements on growth chart (Assumed prior knowledge).
- Outline principles of nutrition in infancy and childhood (Assumed prior knowledge).
- Describe the hormonal and physical changes in normal puberty in boys and girls (Assumed prior knowledge).
- Define delayed and precocious puberty: adrenarche, thelarche and menarche (Assumed prior knowledge).

	<p>Paediatric Emergencies</p> <ul style="list-style-type: none"> • Demonstrate the presentation and management of acute anaphylaxis in children. • The child with breathing difficulties (croup, epiglottitis, tracheitis, pulmonary oedema e.g. in cardiac disease). <ul style="list-style-type: none"> - Describe the presentation and management of mild and more severe croup. - Describe the presentation of epiglottitis and distinguish from croup. - Outline the important steps in the management of suspected epiglottitis. • The child in shock. • The child with decreased conscious level. • Demonstrate the management of a choking child. • Head injuries. • Poisoning and toxic exposures. • The burned or scalded child. • Apparent life-threatening events (ALTEs) – management and investigation.
<p>Learning Outcomes</p>	<p>After completion of the module students are expected to be able to:</p> <ul style="list-style-type: none"> • Demonstrate deep understanding of the communication skills that facilitate relationships and effective collaborations with children, adolescents and parents. • Know the current UK routine immunisation schedule and be able to answer parental concerns on vaccinations. • Understand the gastrointestinal disorders and the pharmacology used in gastroenterology. • Understand and manage the psychiatric conditions of Autism Spectrum Disorder (ASD) and Attention Deficit Hyperactivity Disorder (ADHD). • Understand and manage the eating disorders. • Address issues of sexual orientation and gender identity. • Diagnose a child with a limp and other orthopaedic problems and be able to provide the appropriate therapy. • Diagnose and manage ENT conditions. • Diagnose and manage the commonest children's skin problems. • Describe the clinical features, diagnose and manage children with fever. • Demonstrate deep understanding of the aspects of neonatology. • Demonstrate deep understanding of the stages of child development. • Describe, diagnose and manager neurological problems. • Understand and manage the care of children with disorders relevant to nephrology. • Assess and provide treatment to children with acute abdominal pain. • Recognise when children need urgent surgical intervention. • Diagnose and provide treatment to children with visual problems. • Explain, diagnose and manage core allergy problems. • Understand SIDS and recognize ways to lower the risk of SIDS. • Understand and outline the management of Non-Accidental Injuries (NAI). • Explain the common feeding problems in the neonatal period and describe the problems in their management.

	<ul style="list-style-type: none"> • Understand and manage the presentation of diabetes. • Understand and manage the presentation of asthma and other respiratory diseases. • Understand and manage the presentation of infectious diseases. • Diagnose and treat endocrine disorders in children. • Understand and manage the presentation of pubertal disorders. • Understand and manage the main genetic diseases. • Understand and manage immunodeficiency conditions. • Understand and manage cases where growth is abnormal. • Understand and manage the presentation of emergencies. 																		
Prerequisites	None	Required	None																
Module Content	<ul style="list-style-type: none"> • Introduction to Paediatrics: Communication, Immunisation, Gastroenterology, Disorders, Sexuality and Dermatology • An Overview of Febrile, Neonatology, Development, Neurology, Nephrology, Acute Abdomen, Ophthalmology, Allergies, SIDS, and Feeding • An Overview of Diabetes, Respiratory diseases, Infections, Endocrinology, Pubertal disorders, Genetics, Immunodeficiency, Development, Emergencies 																		
Teaching Methodology	This programme is delivered via distance learning (online) and includes recorded lectures, interactive online tutorials (Webinars) and discussion forums, as well as online exercises and other activities.																		
Bibliography	<p>Required Textbooks / Reading:</p> <p>PowerPoint presentations with relevant references and articles will be provided each week. There is no pre-required bibliography.</p> <p>Recommended Textbooks / Reading:</p> <table border="1"> <thead> <tr> <th>Title</th> <th>Author(s)</th> <th>Publisher</th> <th>Year</th> <th>ISBN</th> </tr> </thead> <tbody> <tr> <td>Atopic Eczema in Children: Management of Atopic Eczema in Children from Birth up to the Age of 12 Years</td> <td>National Collaborating Centre for Women's and Children's Health</td> <td>London: RCOG Press</td> <td>2007</td> <td>978-1-904752-42-4</td> </tr> <tr> <td>Attention Deficit Hyperactivity Disorder: Diagnosis and Management of ADHD in Children, Young</td> <td>National Collaborating Centre for Mental Health</td> <td>British Psychological Society and RCPsych Publications; Pap/Cdr edition</td> <td>2009</td> <td>978-1-85433-471-8</td> </tr> </tbody> </table>				Title	Author(s)	Publisher	Year	ISBN	Atopic Eczema in Children: Management of Atopic Eczema in Children from Birth up to the Age of 12 Years	National Collaborating Centre for Women's and Children's Health	London: RCOG Press	2007	978-1-904752-42-4	Attention Deficit Hyperactivity Disorder: Diagnosis and Management of ADHD in Children, Young	National Collaborating Centre for Mental Health	British Psychological Society and RCPsych Publications; Pap/Cdr edition	2009	978-1-85433-471-8
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	People and Adults				
	A Clinical Handbook on Child Development Paediatrics	Sandra Johnson	Churchill Livingstone; 1 edition	2013	978-0729540896
	Emery's Elements of Medical Genetics	Peter D Turnpenny, Sian Ellard	Churchill Livingstone; 14 edition	2011	978-0702040436
	Practical Genetic Counselling	Peter Harper	Routledge; 7 edition	2010	978-0340990698
	Oxford Desk Reference - Clinical Genetics	Helen V. Firth, Jane A. Hurst	OUP Oxford	2005	978-0192628961
Assessment	<ul style="list-style-type: none"> • WPBA Components <ul style="list-style-type: none"> - Summative CBD (CBD 9) - Summative CEPS (CEPS 8) • Exams <ul style="list-style-type: none"> - Summative AKT Exam 				
Language	English				