Residency Program
Doctor of Medicine (MD)
Curriculum (Phase-B)

Paediatrics

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1. Introduction:

Pediatrics is that branch of medicine concerned with the study and care of infants, children and youth in health and disease, their growth and development, and their opportunity to achieve full potential as adults. In the remainder of this document, reference to children also includes infants, children and youth. A Pediatrician is a specialist trained in the diagnosis and treatment of a broad range of diseases involving children based on a sound knowledge of normal growth and development and of the wide range of clinical conditions encountered in infants, children, and youth.

2. Goals and Objectives:

Goals:

- Residents must demonstrate the requisite knowledge, skills, and attitudes for effective patient-centered care and service to a diverse population. In all aspects of specialist practice, the graduate must be able to address issues of age, gender, sexual orientation, culture, ethnicity and ethics in a professional manner.
- Upon completion of training, a resident is expected to be a competent specialist in Pediatrics capable of assuming a consultant's role in the specialty.
- The resident must acquire a working knowledge of the theoretical basis of the specialty, including its foundations in the basic medical sciences and research.
- Competence is to be acquired through coordinated learning experiences organized under the aegis of a university department of Pediatrics. This will have included both the necessary practical clinical experiences and formal educational activities.
- Through his/her training, the resident will have acquired a degree of independent responsibility for clinical decisions and an understanding of the nature of the relationships between a referring physician and a consultant Pediatrician. Following completion of training and certification in Pediatrics, the resident will be prepared for independent practice capable of assuming a consultant's role in the specialty.
- Prepare trainee to be able to meet and respond to the changing healthcare needs and expectation of the society.
- To ensure that they have appropriate foundation for lifelong learning and further training
- To help them develop critical thinking skill and problem solving skill while managing health problems

General Objectives:

The educational and training process aims to produce paediatrician who:-

- Can address all aspects of the healthcare needs of patients and their families.
- Maintain the highest standards appropriate in their professional field.
- Are aware of current thinking about ethical and legal issues.
- Are able to act as safe independent practitioners whilst recognizing the limitation of their own expertise and are able to recognize their obligation to seek assistance of colleagues where appropriate.
- Are aware of the procedures and able to take appropriate action, when things go wrong, both in their own practice and in that of others.
- Will be honest and objective when assessing the performance of those they have supervised and trained.
- Can take advantage of information technology to enhance all aspects of patient care.
- Can develop management plans for the "whole patient" and maintain knowledge in other areas of medicine which impinge on the specialty.
- Understand that effective communication between them and their patients can lead to more effective treatment and care.
- Apply appropriate knowledge and skill in the diagnosis and management of patients.
- Establish a differential diagnosis for patients presenting with medical problems by the appropriate use of the clinical history, examination and investigations.
- Are competent to perform the core investigations and procedures required in their specialties.
- Develop clinical practice which is based on an analysis of relevant clinical trials and to have an understanding of their research methodologies.
- Are able to apply the knowledge of biological and behavioral sciences in clinical practice.

- Are able to identify and take responsibility for their own educational needs and the attainment of these needs.
- Have developed the skills of an effective teacher.

3. Admission Requirements for Phase B:

Residents who have passed Phase A Final Examination are eligible for enrolment in the Phase B Program.

4. Curriculum Structure for Phase B:

The training is designed to develop both the generic and specialty-specific attributes necessary to practice independently as a consultant Paediatrician. The aim is to train individuals to provide the highest standard of service to patients with all paediatric disorders. This includes the development of positive attitudes towards lifelong learning and the ability to adapt to future technological advances and the changing expectations of society.

4.1 Phase B: Paediatric Specialty Training:

In-depth specialty-specific educational and training program in this phase will make the resident competent and prepare them for the specialty qualification. It will provide educational program covering the specialty of Paediatrics and its subspecialties, Biostatistics, Research Methodology and Medical Education along with rotation of specific clinical training.

Expected outcomes at the completion of the Phase B program:

Residents of this training program will be equipped to function effectively within the current and emerging professional, medical and social contexts. At the completion of the training program, as defined by this curriculum, it is expected that a new Paediatrician will have developed the clinical skills and have acquired the theoretical knowledge for competent Paediatric practice. It is expected that a new **Paediatrician** will be able to:

- Utilize effective communication with patients and their families and with professional colleagues.
- Be devoted to lifelong learning.

- Be equipped to manage both acute and chronic paediatric disorders.
- Identify the pathophysiology and manifestations of paediatric disorders, and modern therapeutics, which can be applied to patient diagnosis and management.
- Apply appropriate skills to perform necessary diagnostic and therapeutic decisions.
- Demonstrate a capacity to rationally analyze clinical date and published work.
- Demonstrate an understanding of and commitment to the role of research in advancing medical care
- Develop a commitment to compassionate, ethical professional behavior.
- Identify health issue of importance in the community and contribute constructively to address those issues.
- Apply primary and secondary prevention strategies in prevention of diseases and ensure optimal health of the children

5. Teaching and Learning Methods:

The bulk of learning occurs as a result of clinical experiences (experiential learning, on-the-job learning) and self-directed learning. The degree of self–directed learning will increase as trainees became more experienced. Teaching and learning occurs using several methods that range from formal didactic lectures to planned clinical experiences. Aspects covered will include knowledge, skills and practices relevant to the discipline in order to achieve specific learning outcomes and competencies. The theoretical part of the curriculum presents the current body of knowledge necessary for practice. This can be imparted using lectures, grand teaching rounds, clinico-pathological meetings, morbidity/mortality review meetings, literature reviews and presentations, journal clubs, self-directed learning, conferences and seminars.

5.1 Phase B Training Rotations:

The resident will start the training rotation from the parent department initially and rotate through following blocks subsequently:

1)	General Paediatrics	12 months (4 Block) at the beginning
2)	Neonatology	2 months
3)	Paediatric Neurology	1 month
4)	Paediatric Pulmonology & Cardiology	1 month
5)	Paediatric Nephrology	2 months
6)	Paediatric Haematology and Oncology	2 months
7)	Paediatric Gastroenterology/ Nutrition	2 months
8)	General Pediatrics	Rest of the 12 months (4 Block) at the end

6. Record of Training:

The evidence requires confirming progress through training includes:

- Details of the training rotations, the training plan agreed with weekly timetables and duty rosters and numbers of practical procedures and outcomes.
- Confirmations of attendance at events in the educational program, at departmental and interdepartmental meetings and other educational events.
- Confirmation (certificates) of attendance at subject-based/skills-training/instructional courses.
- Recorded attendance at conference and meetings.
- A properly completed logbook with entries capable of testifying to the training objectives which have been attained and the standard of performance achieved.
- CME activity.
- Supervisor's reports on observed performance (in the workplace): of duties, practical procedures, of presentation made and teaching activity: of advising and working with others, of standards of case notes, correspondence and communication with others.

6.1 Logbook:

Residents are required to maintain a logbook in which entries of academic/professional work done during the period of training should be made on a daily basis, and signed by the supervisor. Completed and duly certified logbook will form a part of the application for appearing in Phase B Final Examination.

7. Research:

Development of research competencies forms an important part of the Residency Program curriculum as they are an essential set of skills for effective clinical practice. Every Resident shall carry out work on an assigned research project under the guidance of a recognized supervisor the project shall be written and submitted in the form of a Thesis/ Research Report as per general directive issued by the University authority

8. Assessment:

The assessment for certification of the MD degree of the University is comprehensive, integrated and phase-centered attempting to identify attributes expected of specialists for independent practice and lifelong learning and covers cognitive, psychomotor and affective domains. It keeps strict reference to the components, the contents, the competencies and the criteria laid down in the curriculum. Assessment includes both **Formative Assessment and Summative (Phase final) Examinations.**

8.1. Formative Assessment:

Formative assessment will be conducted throughout the training phases. It will be carried out for tracking the progress of residents, providing feedback, and preparing them for final assessment (Phase completion exams).

There will be Continuous (day-to-day) and Periodic type of formative assessment.

- **Continuous (day-to-day) formative assessment** in classroom and workplace settings provides guide to a resident's learning and a faculty's teaching / learning strategies to ensure formative lesson / training outcomes.

- **Periodic formative assessment** is quasi-formal and is directed to assessing the outcome of a **block placement** or **academic module completion**. It is held at the end of Block Placement and Academic Module Completion. The contents of such examinations include **Block Units** of the Training Curriculum and **Academic Module Units** of the Academic Curriculum.

8.1.1. End of Block Assessment (EBA):

End of Block Assessment (EBA) is a periodic formative assessment and is undertaken after completion of each training block, assessing knowledge, skills and attitude of the residents. Components of EBA are written examination, structured clinical Assessment (SCA), medical record review, and logbook assessment. Unsatisfactory block training must be satisfactorily completed to be eligible for phase final examination

8.1.2. Formative assessment for Academic modules for Biostatics and Research Methodology and Medical Education to be done in the first nine months of Phase B training. Residents getting unsatisfactory grade must achieve satisfactory grade by appearing the re-evaluation examination to be eligible for the Phase B Final Examination.

8.2. Summative Examination:

Assessment will be done in two broad compartments.

a) **Compartment A:** Consist of 3 (three) components.
   1. Written Examination (Consisting of 2 papers).
   2. Clinical Examination (One long and four short cases).
   3. SCA and Oral (10 stations SCA, Oral one board consisting of 2 examiners).

Every Resident must pass all the 3 components of compartment-A separately. Candidates will be declared failed if he/she fails in one or more component (s) of the examination. He/she then have to appear all the 3 components in the next Phase B Final Examination.

b) **Compartment B:** Thesis and Thesis defense.

8.2.1. Written Examination:

Two Papers: Contents of written papers listed in Annexure II

Question type and marks:

- Two Papers (Paper I and Paper II); 100 marks each; Time 3 hrs for each paper. Pass marks-60% of total of 2 papers.
- **Each paper will consist of Two Groups:**
- **Group A:**
  - 10 short questions (5 marks each)
  - These will assess the knowledge of different level and its application
- **Group B:**
  - 5 scenario based problem solving questions (10 marks for each).
  - The questions should focus to assess the capability of handling clinical problem independently and comprehensively as a specialist.
  - Suggested format:–
    - A scenario followed by question(s).
    - Questions may include diagnosis, differential diagnosis, investigation plan, treatment, follow up and patient education.

8.2.2. Clinical Examination: Long case and Short case:

- There will be one long case and four short cases.

i) **Long case: Marks-100**
  - Directly observed
  - Two examiners for each examinee.
  - History taking and examination by the examinee – 30min.
  - Discussion on the case 20 min.(presentation 6min, crossing 6x2min and decision 2min).
  - Examiners will not ask any question nor stop the examinee in any way during history taking and physical examinations.

  - Discussion should be done preferably as per structured format and proper weightage on different segments of clinical skills.

ii) **Short cases : Marks-100**
  - Four in number
  - Time 20-30 min. (Time will be equally divided for each short case)
  - Crossing should be done with proper weightage on different segment of clinical skills.

iii) **Pass marks: 60% of total of Long and Short Cases**

8.2.3. Structured Clinical Assessment (SCA): Marks-100

- 10 stations : 5 min each

8.2.4. Oral Examination: Marks-100

- One board consisting of 2 examiners.
- 20 minutes (9+9+2).

8.2.5. Pass marks in SCA and Oral: 60% of total (SCA and Oral.)

8.3. Thesis Evaluation:

- **Marks: Thesis writing-200; Defense-100: Marks for acceptane-60% of total.**

- To be evaluated by 3 (three) evaluators:- 2 subject specialists and one academician preferably involve in research and teaching research methodology.
- Among the subject specialists one should be external.
- Evaluators should be in the rank of Professor/Associate Professor.
- Supervisor will attend the defense as an observer and may interact only when requested by the evaluators.
- Thesis must be submitted to the controller of Exam not later than 27 months of enrolment in Phase-B.
- Thesis must be sent to the evaluators 2 (Two) weeks prior to assessment date.
- Evaluation will cover Thesis writing and its defense.

- For thesis writing evaluator will mark on its structure, content, flow, scientific value, cohesion, etc.
- For defense – Candidate is expected to defend, justify and relate the work and its findings.
- Assessment must be completed in next 3 months.
- Outcome of the assessment shall be in 4 categories – "Accepted", "Accepted with minor correction", "Accepted with major correction" and "Not Accepted".

8.3.1. Description of terms:

- **Accepted:** Assessors will sign the document and resident will bound it and submit to the Controller of Examinations by 10 days of the examination.
- **Accepted with minor correction:** Minor correction shall include small inclusion/exclusion of section; identified missing references, correction of references and typographical and language problem. This should be corrected and submitted within 2 weeks.
- **Accepted with major correction:** Task is completed as per protocol with acceptable method but some re-analysis of result and corresponding discussion are to be modified.
- To be corrected, confirmed by Supervisor and submit within 3 (Three) weeks.
- **Not Accepted:** When work is not done as per protocol or method was faulty or require further inclusion or confirmation of study.
- To complete the suggested deficiencies and reappear in defense examination during its next Phase Final Examination.
- Candidate has to submit his/her thesis and sit for examination and pay usual examination fess for the examination.

8.3.2. Residents must submit and appear Thesis defense at notified date and time. However non- acceptance of the Thesis does not bar the resident in appearing the written, clinical and oral exam.

8.4. Qualifying for MD/MS Degree:

On passing both the compartments, the candidate will be conferred the degree of MD/MS in the respective discipline. If any candidate fails in one compartment he/she will appear in that compartment only in the subsequent Phase-B exam.

9. Supervision and Training Monitoring:

Training should incorporate the principle of gradually increasing responsibility, and provide each trainee with a sufficient scope, volume and variety of experience in a range of settings that include inpatients, outpatients, emergency and intensive care. All elements of work in training rotation must be supervised with the level of supervision varying depending on the experience of the trainee and the clinical exposure. Outpatient and referral supervision must routinely include the opportunity to personally discuss all cases. As training progresses the trainee should have the opportunity for increasing autonomy, consistent with safe and effective care for the patient. Trainees will at all times have a named Supervisor responsible for overseeing their education.

Supervisors are responsible for supervision of learning throughout the program to ensure patient and/or laboratory safety, service delivery as well as the progress of the resident with learning and performance. They set the lesson plans based on the curriculum, undertake appraisal, review progress against the curriculum, give feedback on both formative and summative assessments as well as sign the logbook and portfolio. The residents are made aware of their limitations and are encouraged to seek advice and receive help at all times.

The Course Coordinator of each department coordinates all training and academic activities of the program in collaboration with the **Course Manager**.

The **Course Director** of each faculty directs guides and manages curricular activities under his/her jurisdiction and is the person to be

reported to for all events and performances of the residents and the supervisors.

10. Curriculum Implementation, Review and Updating:

Both Supervisors and Residents are expected to have a good knowledge of the curriculum and should use it as a guide for their training program. Curriculum is a dynamic one needs review and up-dating over time to time with changing knowledge, need, expectation and societal demand. The Curriculum is specifically designed to guide an educational process and will continue to be the subject of active redrafting, to reflect changes in both theory and practice. Residents and Supervisors are encouraged to discuss the curriculum and give feedback on content and issue regarding implementation to Course Director.

11. Phase B Syllabus:

General Content of Core Training

The resident will have had an adequate experience in both the in-hospital services and the ambulatory facilities of a children's hospital or of the pediatric department of a general hospital. The resident must also have appropriate experience in community based child health services. A portion of the training must include experience and study in the comprehensive care of children with physical and psychosocial challenges. The resident will learn the skills to work collaboratively with and to provide consultation to other medical and health disciplines dealing with infants and children, especially with Psychiatry, Surgery and Obstetrics. The resident will acquire the professional attitudes to work with other health disciplines in a variety of health care service models. The resident will develop the skills of a self-directed, life-long learner. The resident will learn the skills to critically appraise both his/her practice as well as the practice of Pediatrics.

Specific Content

The resident will have been registered in an accredited Pediatric postgraduate residency program. The resident will have had experiences in core general Pediatrics and in the various Pediatric

subspecialties, in both in-patient and ambulatory settings. Core Pediatric training must include experiences in acute and ongoing care Pediatrics, Pediatric Emergency Medicine, neonatology, Developmental, and behavioural Pediatrics. In order to assure an adequate breadth of training, maximum experience in any one subspecialty or discipline must be limited to six months during the three core years under Section 1. The resident will learn to set his/her own educational goals and will have had opportunities for elective experiences outside of the core training program, the essential feature being that these must be arranged with the understanding and approval of the postgraduate program director.

PEDIATRICS COMPETENCIES

At the completion of training, the resident will have acquired the following competencies and will function effectively as a:

Medical Expert

Definition:

As Medical Experts, Pediatricians integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of family-centered care. Medical Expertis the central physician Role in the CanMEDS framework.

Key and Enabling Competencies: Pediatricians are able to...

1. Function effectively as consultants, integrating all of the CanMEDS Roles to provide optimal, ethical and patient-centered medical care

1.1. Perform a consultation effectively, including the presentation of well-documented assessments and recommendations in written and/or verbal form in response to a request from another health care professional with respect to patient care and education

1.2. Demonstrate effective use of all CanMEDS competencies relevant to Pediatrics

1.3. Identify and appropriately respond to relevant ethical issues arising in patient care

1.4. Demonstrate ability to effectively and appropriately prioritize professional duties when faced with multiple patients and problems
1.5. Demonstrate compassionate and patient-centered care
1.6. Recognize and respond to the ethical dimensions in medical decision-making
1.7. Demonstrate medical expertise in situations other than patient care, such as providing expert legal testimony or advising governments, as needed

2. Establish and maintain clinical knowledge, skills and attitudes appropriate to Pediatrics

In Pediatrics, knowledge acquisition must include normal human anatomy, physiology and psychology as expressed in a biopsychosocial model of human growth and development. The Pediatrician will understand the pathophysiological and psychological processes underlying departure from normal. This will include knowledge of therapy in its broadest sense, to include life-style, nutritional, physical and drug therapies. A Pediatrician will demonstrate the ability to access and apply relevant information to clinical practice.

For all clinical situations listed below, the Pediatrician must be able to evaluate, investigate, diagnose, manage and refer when appropriate:

2.1 Apply knowledge of the clinical, socio-behavioural, and fundamental biomedical sciences relevant to Pediatrics

2.1.1 Recognize, diagnose and manage; the normal healthy state, the natural course of pediatric problems, variations in and departure from the normal

2.1.2 **ACUTE CARE (Critical Care / Emergency Pediatrics)**

Knowledge	Clinical skill	Procedural skill
Pathophysiology of altered consciousness, shock, respiratory failure and principles of mechanical ventilation	Cardiorespiratory arrest	Recognition of critically ill infant/child

Pathophysiology of cardiorespiratory arrest and resuscitation	Shock	Airway management and cardiopulmonary resuscitation
Principles, techniques and limitations of invasive and non-invasive cardiorespiratory monitoring	Respiratory failure	Access and care for indwelling catheters
Fluid and electrolyte managementin the acutely ill patient	Status epilepticus	Perform and interpret oximetry
Role of nutritional support in critical care	Coma	Stabilization and/or transfer of the critically ill child
Principles, role and logistics of both inter- and intra-hospital transport of acutely ill infants and children	Multiple trauma	Tracheotomy tube care, including replacement
Principles of treatment to sustain function of failing organs	Acute injuries	Provision of procedural sedation, including choice of pharmacologic agent, appropriate monitoring and surveillance, and non-invasive airway support
Determination of brain death and principles of organ donation	Head injury	Foreign body removal fromeye/nose/upper airway
Management of the child with special needs and/or technology dependence	Apparent life-threatening events (ALTE)	Assessment of the traumatized eye, including eye irrigation, and the use of dilating drops, topical fluorescein, topical anesthetics

	Renal failure	Immobilization of acute limb injury including fractures
	Hepatic failure	Cervical spine immobilization
	Metabolic crises, e.g. diabetic ketoacidosis, hyperammonemia, metabolic acidosis	Gastric lavage
	Foreign body aspiration	
	Acute vomiting and dehydration	
	Sepsis	
	Electrolyte imbalance	
	Foreign body	
	Burn management	
	Near drowning	
	Poisonings and drug overdoses	
	Lacerations	

2.1.3. ADOLESCENT HEALTH CARE

Knowledge	Clinical skill	Procedural skill
Normal development: physical, cognitive, psychological, sexual; emotional, behavioural, psychosocial development; peer relationships, parent-adolescent relations	Eating disorders: anorexia nervosa, bulimia, obesity	Gynecological, genito-urinary and pelvic examination and specimen procurement
Adolescents and society: influencing factors, heterogeneity, sub-cultures	Behavioural problems: risk taking, delinquency	Breast examination
Health needs and health problems	Gynecological problems and disorders of menstruation	Assessment of adolescent using HEEADSS format (Home, Education, Eating, Activity, Drugs, Sexuality, Suicide)

Normal adolescent behaviour	Pregnancy issues, contraception, sexually transmitted infections	
Adolescent Intervention principles	Alcohol, drug, tobacco and other substance use and abuse	
Laws and resources in adolescence	Chronic diseases and compliance to therapeutic regimen	
Normal adolescent gynecology	Sexuality: male / female issues, sexual orientation	
Transition of youth with chronic conditions to adult care	Fatigue	
	Psychosomatic conditions	

2.1.4. ALLERGY AND CLINICAL IMMUNOLOGY

Knowledge	Clinical skill	Procedural skill
Normal host defenses and immune response	Recurrent infections and immunodeficiency syndromes including B-cell, T-cell, combined B and T cell, phagocytic and complement problems	Assessment of a patient with a potential primary immunodeficiency
Variations in normal immune response with age	Allergic rhinitis	Counseling patients/parents on avoidance measures to allergens
Pathophysiology of allergy, immunodeficiency states and autoimmune disease	Anaphylaxis	
Basic diagnostic laboratory	Acute and chronic urticaria/angioedema	

techniques involving the immune system		
Pathophysiology of allergic disorders	Drug allergy	
Pharmacologic and immunologic therapy of allergic disorders	Insect stings and bites	
Use of immunoglobulins as a treatment in immunodeficiency states	Serum sickness	
Indications for and limitations of skin testing, RAST/serum IgE testing, serum tryptase and challenge testing	Food allergy	
Understanding treatment options of patients with a primary immunodeficiency disease including antibiotics, antibody replacement therapy, bone marrow transplantation and other standard therapies	Vaccine allergy	

2.1.5 CARDIOVASCULAR SYSTEM

Knowledge	Clinical skill	Procedural skill
Anatomy, hemodynamics and electrophysiology of the normal heart and the common congenital and acquired pediatric heart diseases	Common forms of cyanotic and acyanotic congenital heart disease	Reliably interpret an electrocardiogram in all age groups

Fetal circulation and changes in circulation at birth	Cardiac murmurs	Interpret a chest X-ray with respect to heart size, contour and pulmonary vascularity
Indications for, limitations, benefits, costs and hazards of:	Syncope	
Electrocardiogram	Chest pain	
Chest x-ray	Endocarditis, myocarditis, and pericarditis	
Echocardiogram and doppler	Kawasaki disease	
Diagnostic and interventional cardiac catheterization and angiography	Congestive heart failure	
Radioisotope studies	Cardiac arrhythmia	
Exercise ECG	Cor pulmonale	
Holter monitor	Rheumatic fever	
Pre and post-operative needs of the pediatric heart patient, and long-term complications		
Incidence and recurrence risk for congenital heart disease		
Appropriate use of medications commonly used in the treatment of heart disease		

2.1.6 CLINICAL PHARMACOLOGY AND THERAPEUTICS

Knowledge	Clinical skill	Procedural skill
Mechanisms of action of drugs in relation to their ability to correct a pathophysiologic state	Adverse drug reactions	
Pharmacokinetics in children	Acute and chronic pain	

Placental transfer and breastmilk excretion of drugs	Drug toxicity	
Drug interactions	Drug withdrawal	
Modifications of drug dosage required in altered pathophysiologic states (e.g. renal failure, liver failure)	Sedation (e.g. procedural)	
Therapeutic drug monitoring		
Cost of commonly used drugs; choice of drugs with respect to availability of drug plans; issues related to compliance		
The prevalence, availability and efficacy of complementary and alternative medicine and therapies		

2.1.7. DEVELOPMENT AND BEHAVIOUR

Knowledge	Clinical skill	Procedural skill
Normal and abnormal development - gross motor, fine motor language, personal-social and behavioural	Developmental delay and mental retardation	Assessment of psychomotor development
Biological and psychosocial factors affecting development and behaviour	Pervasive developmental disorders/autism spectrum disorders	Counseling parents on normal growth, development and behaviour with provision of anticipatory guidance (attention to available community support and resources)
Understanding of and interpreting psychological and education testing	Common behavioural problems	

	Crying infant, infantile colic, sleep disorders, nightmares and night terrors	
	Learning disabilities	
	Attention deficit disorders with or without hyperactivity	
	School avoidance	

2.1.8. ENDOCRINOLOGY AND METABOLISM

Knowledge	Clinical skill	Procedural skill
Normal anatomy, embryology and physiology of the endocrine glands	Growth retardation/short stature	Bedside measurement of glucose
Normal physical growth	Disorders of sexual development (ambiguous genitalia / DSD)	Tanner staging (sexual maturity rating) and orchidometry
Physiology of normal and abnormal puberty	Thyroid disease	Proper technique of height / length measurement
Disorders affecting the endocrine system, producing underactivity or overactivity	Type 1 and type 2 diabetes mellitus, diabetic ketoacidosis	
Indications and interpretation of endocrine tests	Inappropriate ADH secretion	
Pharmacology of commonly used drugs and hormones	Hypo/hypercalcemia	
Basic pathways and mechanisms of glucose homeostasis	Hypoglycemia	
	Pubertal disorders / early/late sexual development	
	Pituitary disorders	

	Diabetes insipidus	
	Adrenal disease	
	Hyperlipidemias	
	Metabolic bone disease and osteoporosis	

2.1.9. GASTROINTESTINAL, HEPATIC AND BILIARY SYSTEMS

Knowledge	Clinical skill	Procedural skill
Normal and abnormal development of the gastrointestinal tract	Vomiting and regurgitation	Interpretation of abdominal X-rays
Physiology and normal/abnormal function of the gastrointestinal tract including liver	Diarrhea (acute/chronic)	
Indications for diagnostic procedures including: endoscopy	Malabsorption	
Indications for and interpretation of tests of gastrointestinal	Intestinal bleeding	
	Enlargement of liver	
	Abdominal masses	
	Abdominal pain (acute/chronic)	
	Inflammatory bowel disease	
	Constipation / encopresis	
	Jaundice	
	Liver dysfunction/failure	
	Dysphagia	
	Hepatitis	
	Clinical situations encountered in long-term follow-up of survivors of liver transplantation	

2.1.10. GENETICS, TERATOLOGY AND METABILICS

Knowledge	Clinical skill	Procedural skill
Modes and molecular basis of inheritance	The dysmorphic child	Construction and interpretation of a pedigree
Application of cytogenetics	Exposure to a possible teratogen	Ability to provide genetic counselling to a family / individual with a known genetic or inherited disorder and appropriate referral
Indications and limitations of prenatal diagnosis	Approaches to initial investigations and ongoing management of common genetic syndromes (e.g. Down syndrome, Turner syndrome, Fragile-X)	Ability to perform a first-line work up for a suspected inborn error of metabolism (critical sample, initial investigations)
Indications and limitations of screening programs for genetic disease		Initial management of a metabolic crisis
Principles of assessment of dysmorphology and syndrome identification		
Application of molecular diagnosis		
Common presentations of inborn errors of metabolism		
Embryological basis of malformation		
Environmental factors in fetal development		

2.1.11. RENAL AND GENITOURINARY SYSTEM

Knowledge	Clinical skill	Procedural skill
Normal and abnormal development of the genitourinary tract including the external genitalia	Enuresis, urinary incontinence	Interprete common abnormalities seen on urine microscopy
Clinical presentation of acute and chronic glomerular diseases and tubular disorders	Disorders of the male and female external genitalia	
Indications for, advantages and risks of investigative techniques: IVP, voiding cystourethrograms, renal scan, renal ultrasound, urodynamics, renal angiography, renin studies and renal biopsy	Congenital and acquired hydronephrosis	
Indications and interpretation of renal function tests	Hematuria and nephritic syndromes	
Pathophysiology of acute and chronic renal failure	Urinary tract infection	
Indications, complications and contraindications of dialysis and renal transplantation	Acute and chronic renal failure	
Fluid and electrolyte requirements in normal and abnormal states	Abdominal and pelvic mass	
Normal mechanisms of acid-base balance	Congenital structural anomalies of the urinary tract	
Indications for and	Vesico-ureteral	

interpretations of renal function tests	reflux and obstructive uropathies	
	Circumcision	
	Proteinuria and nephrotic syndromes	
	Hypertension	
	Undescended testes, swollen or tender testis	
	Renal stones	
	Renal tubular disorders, Fanconi syndrome	
	Hypercalcemia, hypocalcemia and rickets	

2.1.12. HEMATOLOGY AND ONCOLOGY

Knowledge	Clinical skill	Procedural skill
Development, structure and functionof the formed elements of the blood and blood-forming organs including the changes in normal values with age	Pallor / anemia	Counseling families faced with life-threatening illness/chronic childhood illness
Physiology of factors responsible for hemostasis and thrombosis	Bleeding and clotting disorders (congenital and acquired)	
Pathophysiology of alterations in morphology or quantity of formed elements in the blood	Cytopenias	
Principles underlying transfusion and hypertransfusion of blood and blood products	Indications and complications of splenectomy	

Pathophysiology of neoplasms including the acute leukemias	Acute and chronic complications of hemoglobinopathies and red cell disorders	
Characteristics and principles of investigation of the acute leukemias and common tumours of childhood	Lymphadenopathy	
Social, familial and personal effects of childhood cancer	Hepatosplenomegaly	
Techniques for safe administration of chemotherapy		
Common side effects of chemotherapy and radiotherapy and their management		
Management of the immunocompromised oncology patient		
Late effects of cancer therapy		
Supportive care (e.g. Central lines, G-CSF, antiemetics etc.)		
Principles of palliative care		
Indications for and interpretation of common hematological tests		

2.1.13. INFECTIOUS DISEASES

Knowledge	Clinical skill	Procedural skill
Characteristics, epidemiology and pathogenicity of common infectious agents and conditions	Common infectious diseases (viral bacterial, fungal, parasitic, protozoan infections)	Tuberculin skin testing - perform and interpret

Mechanisms of infection and host defense	Infection in the immunocompromised host	Procurement of appropriate specimens for diagnosis of infections
Pharmacology of anti-microbial agents and interpretation of sensitivity tests for antibiotics	Fever without focus	Immunizations (storage, administration and documentation)
Control of communicable diseases, including prevention and immunization	Fever of unknown origin	
Prevention of congenital and perinatal infections	Perinatal / congenital infections	
Diagnostic tests used to diagnose infectious diseases, including bacterial and viral cultures, microscopy, serology, PCR	HIV Infection	
Nosocomial infections and infection control	Occult bacteremia	
Antimicrobial resistance	Life-threatening infection	
	Infectious issues relating to travel and immigration	
	Non-immunized/under immunized child	

2.1.14 NEONATAL-PERINATAL MEDICINE

Knowledge	Clinical skill	Procedural skill
Fetal growth, development and physiology including the role of the placenta	Respiratory distress	Initial assessment of the newborn, including APGAR score and gestational age

Aspects of pregnancy, labour and delivery which affect the neonate	Cyanosis	Recognition, resuscitation and stabilization of the critically ill newborn
Effect of maternal systemic disease on the fetus and newborn	Jaundice	Management of conventional mechanical ventilation and its complications
Demographic, medical and psychosocial factors which influence perinatal mortality and morbidity (the high-risk pregnancy)	Growth aberrance: IUGR, SGA/LGA	Initial management of a positive newborn screen
Process of neonatal adaptation to extrauterine life	Asphyxia	
Neonatal growth, nutrition, metabolic problems, feeding problems	Sepsis	
Aspects of drug therapy unique to the newborn	Metabolic abnormalities including hypoglycemia, hypo / hypercalcemia	
General principles of care of the newborn: skin care, temperature regulation, feeding, fluid balance and pain management	Intraventricular hemorrhage	
Clinical situations encountered in the management of the high-risk neonate	Hypovolemia and shock	
Newborn screening	Apnea	
Immunizations in the newborn	Prematurity	
Outcomes for	Bronchopulmonary	

survival and factors influencing outcome	dysplasia	
Care and follow-up of the low birth weight and high-risk baby after discharge	Retinopathy of prematurity	
	Seizures	
	Floppy infant	
	Feeding difficulties / vomiting	
	Surgical problems of the newborn	
	Anemia, polycythemia, thrombocytopenia, thrombosis, bleeding disorders, white cell disorders	
	Drug withdrawal	
	Stridor	

2.1.15. NEUROMUSCULAR SYSTEM

Knowledge	Clinical skill	Procedural skill
Basic embryology, neuroanatomy and neurophysiology of the central nervous system, congenital malformations and common pediatric neurological problems	Congenital malformations of the nervous system including the skull	
Indications for, appropriate use of, and risks/complications of the following investigations:	Neurocutaneous syndromes	
Lumbar puncture	Developmental regression	
EEG	Seizures and sudden loss of consciousness	
Evoked potentials	Headaches	
Nerve conduction	Head trauma and sequelae	

studies and electromyography		
Skull and spine x-rays	Cerebrovascular diseases including intracranial hemorrhage and strokes	
Ultrasound scan of the head and spine	Diseases of muscle (e.g. muscular dystrophies, myopathies)	
CT / MRI scans	Disorders of peripheral nerves	
Genetic investigations (chromosomes, DNA testing)	Nystagmus, dizziness and vertigo	
Interpretation of CSF analysis	Cerebral palsy	
Pharmacology of drugs used in neurologic and neuromuscular problems	Breath-holding spells	
	Raised intracranial pressure	
	Tics	
	Movement disorders	
	Infections of the CNS (meningitis/encephalitis/abscess)	

2.1.16. NUTRITION

Knowledge	Clinical skill	Procedural skill
Recommended nutritional requirements	Failure to thrive	Prescribe and manage parenteral and enteral nutrition
Effect of disease states on nutritional requirements	Obesity	Counseling for healthy active living (healthy eating and physical activity)
Breast feeding and infant feeding	Nutritional deficiencies and excesses	
Health implications of restricted diets, fad diets, diets determined by custom or socioeconomic situation	Feeding disorders	

Indications for, physiological basis of and complications of parenteral and enteral nutrition		
Nutritional assessment		

2.1.17. OPHTHALMOLOGY

Knowledge	Clinical skill	Procedural skill
Basic anatomy, embryology and physiology of the eye, ocular muscles and visual pathways	Congenital blindness	Measure visual acuity by use of standard visual acuity charts
Etiology, classification of visual defects in children	The red eye	
Screening procedures for vision	Proptosis	
Congenital abnormalities of the eye and ocular muscles	Strabismus / amblyopia	
Acquired abnormalities of the eye	Papilloedema	
Ocular manifestations of systemic diseases	Nasolacrimal duct obstruction	
	Cataracts / leukocoria	
	Anisocoria	
	Ptosis	
	Abnormal acuity	
	Heterochromia of the iris	
	Ocular injuries	
	Glaucoma	
	Refractive errors: myopia, hyperopia, astigmatism, anisometropia	
	Eyelid disorders: hordeolum, chalazion, blepharitis	

	Conjunctival disorders: conjunctivitis, mucocutaneous diseases	
	Corneal disorders: ulcers, allergicreactions, keratoconjunctivitis sicca, etc.	
	Uveitis	
	Retinal disorders	
	Disorders of orbit: e.g. orbital cellulitis	

2.1.18. MUSCULOSKELETAL SYSTEM/ RHEUMATOLOGY

Knowledge	Clinical skill	Procedural skill
Anatomy, structure and function of bone, joint and connective tissues, normal and abnormal	Congenital abnormalities	Interpret bone X-rays for fractures
Physiology of normal bone growth and function	Joint and limb pain	Counseling regarding sport preparedness and return to play after injury
Recognition of non-inflammatory connective tissue diseases, e.g. Marfan's syndrome, Ehlers Danlos syndrome	Common fractures, dislocations or injuries	
Mechanisms of immune responses in rheumatic disease	Joint deformities	
Indications for, and interpretation of laboratory tests on blood and synovial fluid	Septic arthritis and osteomyelitis	
Pharmacology of common anti-inflammatory drugs, corticosteroids and immunosuppressive drugs	Common gait disorders (limp, torsional and angular deformities of lower limbs)	
Effects of chronic rheumatic diseases on	Scoliosis	

physical growth and social development		
Common radiographic abnormalities in musculoskeletal diseases	Acute / chronic arthritis	
	Systemic connective tissue diseases, e.g. systemic lupus erythematosis, juvenile idiopathic (rheumatoid) arthritis systemic vasculitis eg. HSP, PAN, KD.	
	Bone tumors	

2.1.19. OTOLARYNGOLOGY

Knowledge	Clinical skill	Procedural skill
Embryology, anatomy and pathophysiology of the ear, nose, throat and upper airway	Hearing loss / deafness	Perform curettage under direct visualization of the ear
Indications and limitations of diagnostic imaging of the upper airway	Congenital deformities of the ear	Interpretation of the tympanogram
Normal and abnormal dentition	Otitis media / otitis externa	Interpretation of soft tissue X-raysin acute upper airway obstruction
	Mastoiditis and sinusitis	
	Rhinitis	
	Epistaxis	
	Congenital and acquired nasal obstruction, nasal polyps	
	Tonsillitis and complications	

	Cleft lip and palate	
	Retropharyngeal abscess	
	Supraglottic cellulitis / epiglottitis	
	Congenital and acquired stridor	
	Hoarseness, voice abnormalities	
	Dental caries, dental trauma	
	Congenital and acquired neck masses	
	Facial swelling / asymmetry	
	Upper airway abnormalities	

2.1.20. RESPIRATORY STSTEM

Knowledge	Clinical skill	Procedural skill
Anatomy and pathophysiology of lower airways, lung, diaphragm and chest	Cough, acute and chronic	Demonstrate use of respiratory devices including spacers, peak flow meters, metered dose inhalers
Control of respiration	Dyspnea	Interpretation of pulmonary function tests
Pharmacology of drugs used in respiratory diseases	Mediastinal and intrathoracic masses	Interpretation of chest X-rays
Role of: chest X-ray, bronchoscopy, lung biopsy, lung scintigraphy, sleep studies, apnea monitors, pulmonary function studies, sweat test, and CT scan of the chest	Asthma	
Assessment and therapy of hypoxemia	Pneumothorax	

	Adult respiratory distress syndrome	
	Hemoptysis	
	Wheezing	
	Cystic fibrosis	
	Pleural effusions	
	Bronchiolitis	
	Bronchiectasis	
	Sleep apnea	
	Acute and chronic aspiration	

2.1.21. SKIN/DERMATOLOGY

Knowledge	Clinical skill	Procedural skill
Embryology and anatomy of the skin and structures derived from ectodermal tissue	Acne	
Classification and pharmacology of common topical medications	Common skin infections/infestations	
Recognition of skin pathology in immune disorders and auto-immune diseases	Common papulosqaumous eruptions e.g.psoriasis, pityriasis rosea, nummular dermatitis	
Indications for dermatology referral and/or for skin biopsy	Common pigmentary or vascular congenital lesions e.g. nevi, café au lait macules, hemangiomas, simple vascular	
	malformations	
	Eczema and other dermatidites	
	Vesiculobullous diseases	
	Common autoimmune conditions in the skin e.g. vitiligo, alopecia areata	

2.1.22. MENTAL HEALTH

Knowledge	Clinical skill	Procedural skill
Non-pharmacological approaches tomanagement of mental health issues	Mood disorders / depression	Use of common standard assessment tools (e.g. SNAP IV)
Pharmacology of psychotropic and anti-depressant medications	Conduct disorders, oppositional defiant behaviour	
Availability of and access to community-based mental health resources	Family dynamics and psychological adjustment to family stress	
Biological, psychosocialand socioeconomic factors affecting mental health	Personality traits	
Impact on child well-being of having a parent with mental illness or substance abuse	Attempted suicide or suicidal ideation	
Indications for hospitalization	Adjustment to life stresses including chronic illness	
	Anxiety disorders including separation anxiety, social phobia, Post Traumatic Stress Disorder (PTSD), panic, generalized anxiety	
	Violent behaviour	
	Psychoses	
	Emotional abuse/bullying	
	Obsessive compulsive disorders	

2.1.23. SURGERY

Knowledge	Clinical skill	Procedural skill
Principles of preoperative assessment	Hernias	
Principles of indications for appropriate surgical referrals	The acute abdomen	

Principles of perioperative management, including fluids, steroids antibiotics	Acute scrotal pain	
Principles of post-operativemanagement, including pain management	Bowel obstruction	
	Appendicitis	
	Abscess	

2.1.24. CHILD MALTREATMENT AND NEGLECT

Knowledge	Clinical skill	Procedural skill
Social factors placing children at risk	Shaken baby syndrome	Gather child maltreatment evidence appropriately including documentation and specimen collection
Impact of violence on health	Physical abuse	Ensure appropriate pain management and patient comfort for procedures
Health problems consequent to maltreatment/neglect	Emotional abuse and neglect	Ensure informed consent is obtained
Laws relating to child protection	Sexual abuse	Document and disseminate information related to procedures performed and their outcomes
Professional requirements in managing victims of maltreatment/neglect including mandatory reporting	Children in care (e.g. foster care, group homes, incarceration)	Ensure adequate follow-up is arranged for procedures performed
		Recognize and manage complications of procedures performed

3. Perform a complete and appropriate assessment of a patient

2.1.25. Identify and explore issues to be addressed in a patient encounter effectively, including the patient's and family's context and preferences

2.2. Elicit a history that is relevant, clear, concise and accurate to context and preferences

2.2.15. Identify data and date of contact

2.2.16. Identify reasons the patient was brought for or sought medical help (chief complaint)

2.2.17. Identify the importance of symptoms in sufficient detail to provide a clear picture of the clinical problem(s) – history of present illness

2.2.18. Identify all other important information from the past history, perinatal history, developmental history, medications, allergies, review of systems, family history, and social history

2.2.19. Perform a focused, efficient, orderly physical examination, demonstrating sensitivity to the patient's needs, modified according to the patient's age, gender and problem, and record this information by regions or systems, including, but not limited to:

2.2.20. Neurological examination, including fundoscopy

2.2.21. Assessment of hearing

2.2.22. Perform a mental status exam

2.3. Demonstrate effective clinical problem solving and decision making:

2.3.15. Interpreting available data and integrating information to generate differential diagnoses and management plans

2.3.16. Correlating, evaluating, prioritizing and synthesizing information including the relevant ethical issues

2.3.17. Implement an effective management plan in collaboration with a patient and their family by:

2.3.18. Selecting medically appropriate investigations in a resource-effective and ethical manner

2.3.19. Apply knowledge derived from critical appraisal of the literature appropriately

2.3.20. Formulation of a problem oriented plan of management

2.3.21. Generating a rational plan of diagnosis and therapies

2.3.22. Interpreting and modifying a plan of management with explanation and ongoing communication with patient and parents

2.3.23. Participating suitably in multi-disciplinary group discussion, initiating or facilitating as required

2.3.24. Maintaining confidential information as appropriate

2.3.25. Evaluating and modifying management plans by periodic reassessment of the patient's progress

2.3.26. Ensuring proper recording of care and its effectiveness

2.3.27. Participating in medical quality assurance activities to review quality of care issues in provision of health care

4. Use preventive and therapeutic interventions effectively

2.4. Demonstrating appropriate and timely application of relevant preventive and therapeutic interventions

2.5. Ensuring appropriate informed consent is obtained for therapies

2.6. Ensuring patients and families receive appropriate palliative and end-of-life care

5. Demonstrate proficient and appropriate use of procedural skills, both diagnostic and therapeutic

2.7. Demonstrate effective, appropriate, safe, and timely performance of the following:

2.7.15. Intravenous access and blood-drawing

2.7.16. Umbilical venous and umbilical arterial catheterization

2.7.17. Arterial puncture

2.7.18. Suture of a one layer laceration, simple wound closure

2.7.19. Cardiopulmonary resuscitation (neonatal and pediatric)

2.7.20. Bag-mask ventilation and tracheal intubation (neonatal and pediatric)

2.7.21. Lumbar puncture

2.7.22. Bladder catheterization and/or suprapubic aspiration
2.7.23. Gastric tube placement (oro or nasogastric)
2.7.24. Intraosseous insertion as demonstrated in either a patient or model
2.7.25. Chest tube placement and thoracocentesis as demonstrated in either a patient or model

6. Seek appropriate consultation from other health professionals, recognizing the limits of their own expertise

2.8. Demonstrate insight into their own limitations of expertise
2.9. Demonstrate effective, appropriate, and timely consultation of another health professionals as needed for optimal patient care
2.9.15. Principles and applications of physical and occupational therapy for musculoskeletal diseases
2.10. Arrange appropriate follow-up care services for a patient and his/her family

Communicator

Definition:

As Communicators, Pediatricians effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.

Key and Enabling Competencies: Pediatricians are able to...

1. Develop rapport, trust, and ethical therapeutic relationships with patients and families
1.1. Recognize that being a good communicator is a core clinical skill for physicians, and that effective physician-patient communication can foster patient satisfaction, physician satisfaction, adherence and improved clinical outcomes
1.2. Establish positive therapeutic relationships with patients and their families that are characterized by understanding, trust, respect, honesty and empathy for patients and their families
1.3. Respect patient confidentiality, privacy and autonomy
1.4. Listen effectively; obtain and synthesize relevant history from patients, families and communities

1.5. Be aware and responsive to nonverbal cues
1.6. Organize and facilitate a clinical encounter effectively
1.7. Demonstrate an ability to support and counsel a child (and his/her family) with chronic and/or catastrophic illness and/or impending death and provide bereavement counseling

2. Accurately elicit and synthesize relevant information and perspectives of patients and families, colleagues, and other professionals

2.1. Gather information about a disease, but also about a patient's beliefs, concerns, expectations and illness experience
2.1.1. Demonstrate respect for individual patients and families, and for their value systems which may be different from the Pediatrician's own values
2.1.2. Give close attention to the impact of such factors as age, gender, disability, ethnocultural background, social support, and emotional influences on a patient's illness
2.1.3. Seek out and synthesize relevant information from other sources, such as a patient's family, caregivers and other professionals
2.1.4. Demonstrate open-mindedness to the consideration of alternative health care practices
2.1.5. Demonstrate an appreciation of the parents' perspective of and concerns for a child's health and the impact of a child's illness on family relationships

3. Convey relevant information and explanations accurately to patients and families, colleagues and other professionals

3.1. Deliver information to a patient and family, colleagues and other professionals in a humane manner and in such a way that it is

understandable, encourages discussion and participation in decision-making

3.1.1. Communicate information and provision of support in a crisis situation, e.g. sudden unexpected death

4. Develop a common understanding on issues, problems and plans with patients, families, and other professionals to develop a shared plan of care

4.1. Identify and explore problems to be addressed from a patient encounter effectively, including the patient's context, responses, concerns, and preferences

4.2. Respect diversity and difference, including but not limited to the impact of age, gender, abilities, religion, language and cultural beliefs on decision-making and effective communication (e.g. aboriginal children, immigrant children and their families)

4.3. Encourage discussion, questions, and interaction in the encounter

4.4. Engage patients, families, and relevant health professionals in shared decision-making to develop a plan of care

4.5. Address challenging communication issues effectively, suoh as obtaining informed consent, delivering bad news, and addressing anger, confusion and misunderstanding

5. Convey effective oral and written information about a medical encounter

5.1. Maintain clear, accurate, and appropriate records (e.g., written or electronic) of clinical encounters and plans

5.2. Present verbal reports of clinicalencounters and plans effectively

5.3. Present medical information effectively to the public or media about a medical issue

Collaborator

Definition:

As Collaborators, Pediatricians effectively work within a health care team to achieve optimal patient care.

Key and Enabling Competencies: Pediatricians are able to...

1. Participate effectively and appropriately in an interprofessional health care team

1.1. Describe the specialist's roles and responsibilities to other professionals

1.2. Describe the roles and responsibilities of other professionals within the health care team

1.3. Recognize and respect the diversity of roles, responsibilities and competences of other professionals in relation to their own

1.4. Work with others to assess, plan, provide and integrate care for individual patients (or groups of patients)

1.5. Work with others to assess, plan, provide and review other tasks, such as research problems, educational work, program review or administrative responsibilities

1.6. Participate effectively in interprofessional team meetings

1.7. Enter into interdependent relationships with other professions for the provision of quality care

1.8. Describe the principles of team dynamics

1.9. Respect team ethics, including confidentiality, resource allocation and professionalism

1.10. Demonstrate leadership in a health care team

1.10.1. Collaborate with teachers, social workers, community leaders, child protection workers and other non-health professionals to assess, plan, provide and review health interventions

2. Work effectively with other health professionals to prevent, negotiate, and resolve interprofessional conflict

2.1. Demonstrate a respectful attitude towards other colleagues and members of an interprofessional team

2.2. Work with other professionals to prevent conflicts

2.3. Employ collaborative negotiation to resolve conflicts

2.4. Respect differences and address misunderstandings and limitations in other professionals

2.5. Recognize one's own differences, misunderstanding and limitations that may contribute to interprofessional tension

2.6. Reflect on interprofessional team function

Manager

Definition:

As Managers, Pediatricians are integral participants inhealth care organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the health care system.

Key and Enabling Competencies: Pediatricians are able to...

1. Participate in activities that contribute to the effectiveness of their health care organizations and systems

1.1. Work collaboratively with others in their organizations

1.2. Participate in systemic quality process evaluation and improvement, including:

1.2.1. Patient safety initiatives, audits, quality improvement, risk management, occurrence / incident reporting, and complaint management in a hospital and ambulatory setting

1.2.2. The assessment of cost/benefit ratios of diagnostic and therapeutic interventions, cost-containment and efficacy, effectiveness and efficiency as they relate to quality assurance

1.3. Describe the structure and function of the health care system as it relates to child health, including the roles of Pediatricians.

1.4. Describe principles of health care financing, including physician remuneration, budgeting and organizational funding

2. Manage their practice and career effectively

2.1. Set priorities and manage time to balance patient care, practice requirements, outside activities, person al life and career goals

2.2. Manage a practice ethically and efficiently, including finances and human resources

2.3. Implement processes to ensure personal practice improvement

2.4. Use information technology appropriately for patient care

3. Allocate finite health care resources appropriately

3.1. Recognize the importance of just and ethical allocation of health care resources, balancing effectiveness, efficiency and access with optimal patient care

3.2. Apply evidence and management processes for cost appropriate care

4. Serve in administration and leadership roles, as appropriate

4.1. Chair or participate effectively in committees and meetings

4.2. Lead or implement change in health care

4.3. Plan relevant elements of health care delivery (e.g., work schedules)

Health Advocate

Definition:

As Health Advocates, Pediatricians responsibly use their expertise and influence to advance child health and well-being of individual patients, families, communities, and populations.

Key and Enabling Competencies: Pediatricians are able to...

1. Respond to individual patient health needs and issues as part of patient care

1.1. Identify the health needs of an individual patient

1.2. Identify opportunities for advocacy, health promotion and disease prevention with individuals to whom they provide care

2. Respond to the health needs of the communities that they serve

2.1. Describe the practice communities that they serve

2.2. Identify opportunities for advocacy, health promotion and disease prevention in the communities that they serve, and respond appropriately

2.3. Appreciate the possibility of competing interests between the communities served and other populations

3. Identify the determinants of health for the populations that they serve

3.1. Identify the determinants of health of children; including barriers to access to care and resources

3.2. Identify vulnerable or marginalized populations within those served and respond appropriately (e.g. homeless, and children living in poverty)

3.3. Demonstrate an appreciation that the health care needs of children are distinct from those of adults

4. Promote the health of individual patients, families, communities, and populations

4.1. Describe an approach to implementing a change in a determinant of health of children

4.2. Describe how public policy impacts on child health

4.3. Identify points of influence in the health care system and its structure

4.4. Describe the ethical and professional issues inherent in health advocacy, including altruism, social justice, autonomy, integrity and idealism

4.5. Appreciate the possibility of conflict inherent in their role as a health advocate for a patient or community with that of manager or gatekeeper

4.6. Describe the role of the medical profession in advocating collectively for health and patient safety

Scholar

Definition:

As Scholars, Pediatricians demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.

Key and Enabling Competencies: Pediatricians are able to...

1. Maintain and enhance professional activities through ongoing learning.

1.1. Recognize the importance of self-assessment of professional competence and practice

1.2. Accept responsibility for developing, implementing and monitoring a personal continuing education strategy

1.3. Conduct a personal practice audit

1.4. Integrate new learning into practice

1.5. Evaluate the impact of any change in practice

2. Evaluate medical information and its sources critically, and apply this appropriately to practice decisions

1.6. Apply the principles of critical appraisal to address a clinical question

1.7. Maintain a questioning and inquisitive attitude towards medical information

3. Facilitate the learning of patients, families, students, residents, other health professionals, the public and others, as appropriate

3.1 Identify collaboratively the learning needs and desired learning outcomes of others

3.2. Select effective teaching strategies and content to facilitate others' learning

3.3. Demonstrate the ability to give an effective lecture or presentation

3.4. Assess and reflect on a teaching encounter

3.5. Provide effective feedback

3.6. Describe the principles of ethics with respect to teaching

4. Contribute to the development, dissemination, and translation of new knowledge and practices

4.1. Describe the principles of research, research ethics and scholarly inquiry

4.2. Pose a scholarly question

4.3. Conduct a systematic search for evidence

4.4. Select and apply appropriate methods to address the question

4.5. Disseminate the findings of a study appropriately

Professional

Definition:

As Professionals, Pediatricians are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high personal standards of behaviour.

Key and Enabling Competencies: Pediatricians are able to..

1. Demonstrate a commitment to their patients, profession, and society through ethical practice

1.1. Exhibit appropriate professional behaviors in practice, including honesty, integrity, commitment, compassion, respect and altruism

1.2. Demonstrate a commitment to delivering the highest quality care and maintenance of competence

1.3. Demonstrate a working knowledge of medical ethics, and recognize and appropriately respond to ethical issues encountered in practice

1.3.1. Demonstrate a working knowledge of the principles of medical ethics focusing on the "best interest" of the child

1.3.2. Demonstrate ability to obtain informed consent and assent

1.3.3. Demonstrate ethical decision-making processes

1.3.4. Demonstrate knowledge of the legal and ethical codes of professional behaviour and the obligations of a physician that apply to pediatrics including: e.g. notification of coroner, reporting of suspected child or sexual abuse, public health issues

1.4. Recognize the principles and limits of patient confidentiality as defined by professional practice standards and the law

1.5. Identify, declare and manage conflicts of interest including appropriate relationships with industry

1.6. Demonstrate tolerance for ambiguity and uncertainty and the possibility of error in decision-making; flexibility and willingness to adjust appropriately to changing circumstances

2. Demonstrate a commitment to their patients, profession and society through participation in profession-led regulation

2.1. Appreciate the professional, legal and ethical codes of practice

2.2. Fulfill the regulatory and legal obligations required of current practice

2.3. Demonstrate accountability to professional regulatory bodies

2.4. Recognize and respond to others' unprofessional behaviours in practice

2.5. Participate in peer review

2.6. Demonstrate a willingness to accept and participate in reviews of professional competence

3. Demonstrate a commitment to physician health and sustainable practice

3.1. Balance personal and professional priorities to ensure personal health and a sustainable practice

3.2. Strive to heighten personal and professional awareness and insight

3.3. Recognize other professionals in need and respond appropriately