

Subject Code: 1NR2010206	Subject Title: Clinical Speciality-II CHILD HEALTH (PAEDIATRIC) NURSING
Pre-requisite	-----NA-----

Course Description

This course is designed to assist students in developing expertise and in-depth understanding in the field of Pediatric Nursing. It will help students to develop advanced skills for nursing intervention in various pediatric medical and surgical conditions. It will enable the student to function as pediatric nurse practitioner/specialist. It will further enable the student to function as educator, manager, and researcher in the field of Paediatric nursing.

Teaching Scheme (Total Hours)			Evaluation Scheme (Marks)				
Lecture (Class and Lab)	Clinical Hours	Total Hours	Theory		Practical		Total
			University Assessment	Continuous Assessment	University Assessment	Continuous Assessment	
150	950	1100	75	25	100	100	300

Objectives

At the end of the course the students will be able to:

1. Apply the nursing process in the care of ill infants to pre adolescents in hospital and community
2. Demonstrate advanced skills/competence in nursing management of children with medical and surgical problems
3. Recognize and manage emergencies in children
4. Provide nursing care to critically ill children
5. Utilize the recent technology and various treatment modalities in the management of high risk children
6. Prepare a design for layout and describe standards for management of pediatric units/hospitals
7. Identify areas of research in the field of pediatric nursing

Course Content

Unit	Hours	Content
I	5	Introduction - Current principles, practices and trends in Pediatric Nursing - Role of pediatric nurse in various settings -Expanded and extended
II	35	- Pathophysiology, assessment(including interpretation of various invasive and non-invasive diagnostic procedures), treatment modalities and nursing intervention in selected pediatric medical disorders - Child with respiratory disorders: - Upper respiratory tract: choanal atresia, tonsillitis, epistaxis, aspiration. - Lower respiratory tract: Broncheolitis, Bronchopneumonia, Asthma, cystic fibrosis - Child with gastro-intestinal disorders: - Diarrheal diseases, gastro-esophageal reflux. - Hepatic disorders: Hepatitis, Indian childhood cirrhosis, liver transplantation. - Malabsorption syndrome, Malnutrition - Child with renal/ urinary tract disorders: Nephrotic syndrome, Nephritis, Hydronephrosis, hemolytic-uremic syndrome, kidney transplantation - Child with cardio-vascular disorders: - Acquired: Rheumatic fever, Rheumatic heart disease, - Congenital: Cynotic and acynotic - Child with endocrine/metabolic disorders: Diabetes insipidus, Diabetes Mellitus – IDDM, NIDDM, hyper and hypo thyroidism, phenylketonuria, galactosemia - Child with Neurological disorders: Convulsions, Meningitis, encephalitis, guillian- Barre syndrome - Child with oncological disorders: Leukemias, Lymphomas, Wilms' tumor, nephroblastomas, neuroblastomas, Rhabdomyosarcoma, retinoblastoma, hepatoblastoma, bone tumors - Child with blood disorders: Anemias, thalassemias, hemophilia, polycythemia, thrombocytopenia, and disseminated intravascular coagulation - Child with skin disorders - Common Eye and ENT disorders - Common Communicable diseases
III	35	Assessment(including interpretation of various invasive and non-invasive diagnostic procedures), treatment modalities including cosmetic surgery and nursing interventions in selected pediatric surgical problems/ Disorders Gastrointestinal system: Cleft lip, cleft palate and conditions requiring plastic surgery, Tracheo esophageal fistula/atresia, Hirschsprungs' disease/megacolon, malrotation, intestinal obstruction, duodenal atresia, gastrochisis, exomphalus, anorectal malformation, omphalocele, diaphragmatic hernia

		➤ Anomalies of the nervous system: Spina bifida, Meningocele, Myelomeningocele, hydrocephalus ➤ Anomalies of the genito-urinary system: Hypospadias, Epispadias, Undescended testes, Exstrophy bladder ➤ Anomalies of the skeletal system ➤ Eye and ENT disorders ➤ Nursing management of the child with traumatic injuries: General principles of managing Pediatric trauma – Head injury, abdominal injury, poisoning, foreign body obstruction, burns – & Bites ➤ Child with oncological disorders: Solid tumors of childhood, Nephroblastoma, Neuro blastoma, Hodgkin's/Non Hodgkin's Lymphoma, Hepatoblastoma, Rhabdomyosarcoma ➤ Management of stomas, catheters and tubes ➤ Management of wounds and drainages
IV	10	Intensive care for pediatric clients • Resuscitation, stabilization & monitoring of pediatric patients • Anatomical & physiological basis of critical illness in infancy and childhood • Care of child requiring long-term ventilation • Nutritional needs of critically ill child • Legal and ethical issues in pediatric intensive care • Intensive care procedures, equipment and techniques • Documentation
V	20	High Risk Newborn • Concept, goals, assessment, principles. • Nursing management of ➤ Post-mature infant and baby of diabetic and substance use mothers. ➤ Respiratory conditions, Asphyxia neonatorum, neonatal apnoea meconium aspiration syndrome, pneumo thorax, pneumo mediastinum ➤ Icterus neonatorum. ➤ Birth injuries. ➤ Hypoxic ischaemic encephelopathy ➤ Congenital anomalies. ➤ Neonatal seizures. ➤ Neonatal hypocalcaemia, hypoglycemia, hypomagnesaemia. ➤ Neonatal heart diseases. ➤ Neonatal hemolytic diseases ➤ Neonatal infections, neonatal sepsis, ophthalmia neonatorum, congenital syphilis, HIV/AIDS ➤ Advanced neonatal procedures. ➤ Calculation of fluid requirements. ➤ Hematological conditions – erythroblastosis fetalis, hemorrhagic disorder in the newborn ➤ Organization of neonatal care, services(Levels), transport, neonatal intensive care unit, organization and management of nursing services in NICU

VI	10	Developmental disturbances and implications for nursing • Adjustment reaction to school, • Learning disabilities • Habit disorders, speech disorders, • Conduct disorders, • Early infantile autism, Attention deficit hyperactive disorders (ADHD), depression and childhood schizophrenia.
VII	10	Challenged child and implications for nursing • Physically challenged, causes, features, early detection & management • Cerebral palsied child, • Mentally challenged child. • Training & rehabilitation of challenged children
VIII	5	Crisis and nursing intervention • The hospitalized child, • Terminal illness & death during childhood • Nursing intervention-counseling
IX	5	Drugs used in Pediatrics • Criteria for dose calculation • Administration of drugs, oxygen and blood • Drug interactions • Adverse effects and their management
X	10	Administration and management of pediatric care unit • Design & layout • Staffing, • Equipment, supplies, • Norms, policies and protocols • Practice standards for pediatric care unit • Documentation
XI	5	Education and training in Pediatric care • Staff orientation, training and development, • In-service education program, • Clinical teaching programs.

Practical

Total = 960 Hours
1 Week = 30 Hours

- Field visits:

S. No.	Deptt./ Unit	No. of Week	Total Hours
1	Pediatric medicine ICU	4	120 Hours
2	Pediatric surgical ICU	4	120 Hours
3	NICU	4	120 Hours
4	Pediatric OT	2	60 Hours
5	Pediatric medicine ward	6	180 Hours
6	Pediatric surgery ward	6	180 Hours
7	Emergency/Casualty	4	120 Hours
8	Field visits*	2	60 Hours
	Total	32	960 Hours

*Child care center, Anganwadi, play school, Special schools for challenged children, Juvenile court, UNICEF, Orphanage, Creche, SOS village

Essential

I. Procedures Observed:

- Echo cardiogram
- Ultrasound head
- ROP screening (Retinopathy of prematurity)
- Any other

II. Procedures Assisted

- Advanced neonatal life support
- Lumbar Puncture
- Arterial Blood Gas
- ECG Recording
- Umbilical catheterization – arterial and venous
- Arterial B P monitoring
- Blood transfusion- exchange transfusion full and partial
- IV cannulation & therapy
- Arterial catheterization
- Chest tube insertion
- Endotracheal intubation
- Ventilation
- Insertion of long line

- Assist in surgery

III. Procedures Performed:

- Airway Management
 - Application of Oro Pharyngeal Airway
 - Oxygen therapy
 - CPAP(Continuous Positive Airway Pressure)
 - Care of Tracheostomy
 - Endotracheal Intubation
- Neonatal Resuscitation
- Monitoring of Neonates – clinically & with monitors, CRT(Capillary Refill Time), assessment of jaundice, ECG
- Gastric Lavage
- Setting of Ventilators
- Phototherapy
- Assessment of Neonates: Identification & assessment of risk factors, APGAR Score, gestation age, Anthropometric assessment, Weighing the baby, Newborn examination, detection of life threatening congenital abnormalities,
- Admission & discharge of neonates
- Feeding - management of breast feeding, artificial feeding, expression of breast milk, OG(Orogastric) tube insertion, gavage feeding, TPN, Breast feeding counseling
- Thermoregulation- Axillary temperature, Kangaroo Mother Care (KMC), Use of Radiant warmer, incubators, management of thermoregulation & control
- Administration of Drugs: I/M, IV injection, IV Cannulation & fixation infusion pump, Calculation of dosages, Neonatal formulation of drugs, use of tuberculin/ insulin syringes, Monitoring fluid therapy, Blood administration.
- Procedures for prevention of infections: Hand washing, disinfections & sterilization, surveillance, fumigation
- Collection of specimens
- Setting, Use & maintenance of basic equipment: Ventilator, O₂ analyzer, monitoring equipment, Photo therapy unit, Flux meter, Infusion pump, Radiant warmer, incubator, Centrifuge machine, Bilimeter, Refractometer, laminar flow

IV. Other Procedures: