CLINICAL SPECIALITY -II MEDICAL SURGICAL NURSING SUB SPECIALITY – NEPHRO-UROLOGY NURSING

Total: 1110 Hours

Theory: 150 Hours

Practical: 960 Hours

AIM:

• This course is designed to assist students in developing expertise and in depth understanding in the field of Nephro and urological Nursing. I t will help students to develop advanced skills for nursing intervention in various. nephro and urological conditions. It will enable the student to function as nephro and urology nurse practitioner/specialist and provide quality care. It 'will further enable the student to function as educator, manager, and researcher in the field of nephro and urology nursing.

OBJECTIVES:

At the end of the course the students are able to:

- Appreciate trends and issues related to nephro and urological nursing.
- Describe the epidemiology, etiology, pathophysiology and diagnostic assessment of nephro and urological conditions.
- Perform physical, psychosocial & spiritual assessment.
- Assist in various diagnostic, therapeutic and surgical interventions.
- Provide comprehensive nursing care to patients with nephro and urological conditions.
- Describe the various drugs used in nephro and urological conditions and nurses responsibility.
- Demonstrate skill in handling various equipments & gadgets used for patients with nephro and urological conditions.
- Appreciate team work & coordinate activities related to patient care.
- Practice infection control measures.
- Identify emergencies and complications & take appropriate measures.
- Assist patients and their family to cope with emotional distress, grief, anxiety and spiritual needs.
- Discuss the legal and ethical issues in nephro and urological nursing.
- Identify the sources of stress and manage burnout syndrome among health care providers.
- Appreciate the role of alternative system of medicine in the care of patient.
- Incorporate evidence based nursing practice and identify the areas of research in the field of nephro and urological nursing.
- Teach and supervise nurses and allied health workers.
- Design a layout of kidney transplant unit and dialysis unit.
- Develop standards of nephro-urological nursing practice.

CONTENTS:

Unit I -Introduction:

- Historical development: trends and issues in the field of nephro and urological nursing.
- Nephro and urological problems. Concepts, principles and nursing perspectives. Ethical and legal issues. Evidence based nursing and its application in nephro and urological nursing (to be incorporated in all the units.

Unit II -Epidemiology:

- Major health problems- urinary dysfunction, urinary tract infections, Glomuerular disorders, obstructive disorders and other urinary disorders. Risk factors associated with nephro and urological conditions- Hereditary, Psychosocial factors, smoking, alcoholism, dietary habits, cultural and ethnic considerations. Health promotion, disease prevention, life style modification and its implications to nursing.
- Alternate system of medicine/complementary therapies

Unit III -Review of anatomy and physiology of urinary system:

• Embryology. Structure and functions. Renal circulation. Physiology of urine formation. Fluid and electrolyte balance. Acid base balance. Immunology specific to kidney.

Unit IV -Assessment of diagnostic measures:

- History taking. Physical assessment, psychosocial assessment. Common assessment abnormalities-dysurea, frequency, enuresis, urgency, hesitancy, hematuria, pain, retention, burning on urination, pneumaturia, incontinence, nocturia, polyurea, anuria, oliguria. Diagnostic tests-urine studies, blood chemistry, radiological procedures -KUB, IVP, nephrotomogram, retrograde pyelogram, renal arteriogram, renal ultrasound, CT scan, MRI, cystogram, renal scan, biopsy, endoscopy-cystoscopy, urodynamics studies- cystometrogram, urinary flow study, sphincter electromyography, voiding pressure flow study, videourodynamics, Whitaker study. Interpretation of diagnostic measures.
- Nurse's role in diagnostic tests.

Unit V -Renal immunopathy / Immunopathology:

- General Concept of immunopathology. Immune mechanism of glomerular vascular disease.
- Role of mediator systems in glomerular vascular disease.

Unit VI -Urological Disorders and Nursing Management:

• Etiology, clinical manifestations, diagnosis, prognosis, related pathophysiology, medical, surgical and nursing management of: Urinary tract infections- pyelonephritis, lower urinary tract infections, Disorders for ureters, bladder and urethra Urinary tract infections. Urinary dysfunctions- urinary retention, urinary incontinence, urinary reflux, Bladder disorders- neoplasms, calculi, neurogenic bladder, trauma, congenital abnormalities. Benign prostrate hypertrophy (BPH.) Ureteral disorders: ureteritis, ureteral trauma, congenital: anomalies of ureters. Urethral disorders- tumours, trauma, and congenital anomalies of ureters.

Unit VII -Glomueral disorders and nursing management:

• Etiology, clinical manifestations, diagnosis, prognosis, related pathophysiology, medical, surgical and nursing management of: Glomueralo-nephritis- chronic, acute nephrotic syndrome. Acute Renal failure and chronic renal failure. Renal calculi. Renal tumours-benign and malignant. Renal trauma. Renal abscess. Diabetic nephropathy.Vascular disorders. Renal tuberculosis. Polycystic. Congenital disorders. Hereditary renal disorders.

Unit VIII - Management of Renal emergencies:

• Anuria. Acute Renal failure, Poisoning. Trauma, Haemturia. Urine retention. Acute graft rejection.

• Nurse's role.

Unit IX -Drugs used in urinary disorders:

• Classification. Indications, contraindications, actions and effects, toxic effects. Role of nurse.

Unit X -Dialysis:

• Dialysis- Historical, types, Principles, goals. Hemodialysis- vascular access sites- temporary and permanent. Peritoneal dialysis. Dialysis Procedures- steps, equipments, maintenance. Role of nurse- pre dialysis, intra and post dialysis. Complications. Counseling and Patient education, Records and reports.

Unit XI -Kidney transplantation:

• Nursing management of a patient with Kidney transplantation: Kidney transplantations- a historical review. Immunology of graft rejections. The recipient of a renal transplant. Renal preservations. Human -Leucocytic Antigen (HLA) typing matching and cross matching in renal transplantation. Surgical techniques of renal transplantations. Chronic renal transplant rejection. Complication after KTP: Vascular and lymphatic, Uroloical, cardiovascular, liver and neurological, infectious complication. KTP in children and management of pediatric patient with KTP. KTP in developing countries. Results of KTP. Work up of donor and recipient for renal transplant. Psychological aspect of KTP and organ donations. Ethics in transplants, Cadaveric transplantation.

Unit XII - Rehabilitation of patient with nephrological problems.

• Risk factors and prevention. Rehabilitation of patients on dialysis and after kidney transplant. Rehabilitation of patients after urinary diversions. Family and patient teaching..

Unit XIII -Pediatric urinary disorders:

- Etiology, clinical manifestations, diagnosis, prognosis, related pathophysiology.
- Medical, surgical and nursing management of children with Renal Diseases -UTI, ureteral reflux, glomerulc nephritis, nephrotic syndrome infantile nephrosis, cystic kidneys, familial factors in renal diseases in childhood, Haemolytic uraemic syndrome. Benign recurrent haemturia, nephropathy, wilms' tumour.

Unit XIV -Critical care units – dialysis, KTP unit:

• Philosophy, aims and objectives. Policies, staffing pattern, design and physical plan of Dialysis and KTP units. Team approach, functions. Psychosocial aspects in relation to staff and clients of ICU, dialysis unit. In-service education. Ethical and legal issues.

Unit XV -Quality assurance in nephrological nursing practice:

• Role of advance practitioner in nephrological nursing. Professional practice standards. Quality control in nephrological nursing and Nursing audit.

PRACTICAL:

- **Procedures to be observed:** CT scan, MRI, Radiographic studies, Urodynamics, Hemo dialysis, Renal Surgeries.
- **Procedures to be assisted:** Blood transfusion, I.V. cannulation & therapy, Arterial Catheterization, Insertion of central line / CVP line, Connecting lines for dialysis, peritoneal dialysis, renal biopsy, Endoscopies- Bladder, urethra.
- **Procedures to be Performed :**Health assessment, Insertion of urethral and supra pubic catheters, Urine analysis, Catheterization, Peritoneal dialysis, Bladder irrigation, Care of ostomies, Care of urinary drainage, Bladder training, Care of vascular access, Setting up dialysis machine and starting, monitoring & closing dialysis, Procedures for prevention of infections: Hand washing, disinfection & sterilization surveillance, and fumigation universal precaution, Collection of specimen. Administration of drugs: 1M, IV injection, IV cannulation & fixation of infusion pump, calculation of dosages, blood administration, monitoring fluid therapy, electrolyte imbalance. Nutritional need, diet therapy, patient education and Counseling.

CLINICAL SPECIALITY- II MEDICAL SURGICAL NURSING SUB SPECIALITY-NEPHRO-UROLOGY NURSING

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Unit No. & Hours	Objectives			Contents w	ith distribute	ed Hours		
	At the end of unit students are able to: Knowledge: Understand the concepts and principles of nursing client with nephro-uro conditions. Skill: Practice principles of nursing while caring for these clients. Attitude: Provide evidence based nursing care.	 Introduction: Historical development: trends and issues in the field of nephro and urological nursing. Nephro and urological problems Concepts, principles and nursing perspectives Ethical and legal issues. (2 hrs) Evidence based nursing and its application in nephro and urological nursing (to be incorporated in all the units) (3 hrs) 						
Unit I :	Introduction	T						
Course (Outcome				gram Outcom			
		Clinician/N urse educator	Professional	Communica tor	Leader and member of the health care team and system	Lifelong learner	Critical thinker	Researcher
		PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO-1: Describe trends and issues in the field of nephro and urological nursing.		2	2	1	2	2	1	2
	CO-2: Explain the nephro and urological problems.		2	2	2	2	2	3
CO-3: Explain concepts, principles and nursing perspectives with nephro-uro conditions.		2	2	2	2	2	2	3
CO-4: Un	nderstand ethical and legal issues.	2	2	2	2	2	2	2
CO-5: Ap	oply evidence based nursing and its on in nephro and urological	2	2	2	2	2	2	3
(5 Hrs)	At the end of unit students are a Knowledge: Describe major neproblems among populations. Skill: Identify the risk factors co to renal conditions. Attitude: Provide health educat related to lifestyle modification promotion of health to the client family.	phro-uro ontributing ion and ss&	 Glomuer disorders Risk fact Heredita habits, cu Health pr implicati (2 hrs) 	calth problem rular disorder s. cors associate ry, Psychoso ultural and et romotion, dis ons to nursin	ed with nephro cial factors, su thnic consider sease preventi	disorders and urolo noking, a ations.(3 h on, life sty	and other ogical cor lcoholism urs) yle modif	nditions-
Unit II :	: Epidemiology							
CourseC	Dutcome	Program Ou Clinician/	tcome Professio Coi	nmuni Leade	er Lifelong	Critical	Res	searcher

		Nurse educator	nal	1 6 1 6 1 1 8 8	and member of the health care team and system	learner	thinker	
		PO1	PO2		PO4	PO5	PO6	PO7
CO-1: Identify the prevelence ar factors of urinary dysfunction, u infections, glomuerular disorder obstructive disorders and other u disorders.	rinary tract	2	2	1	2	2	1	2
CO-2: Exlain the risk factors ass with nephro and urological cond hereditary, psychosocial factors, alcoholism, dietary habits, cultu ethnic considerations	litions like , smoking,	2	2	2	2	2	2	3
CO-3: Describe the health prom- disease prevention, life style mo- and its implications to nursing	2	2	2	2	2	2	3	
CO-4: Discuss about alternate sysmedicine/complementary therapie	2	2	2	2	2	2	2	
IIIAt the end of unit studies(5 Hrs)able to:Knowledge: Recall and physiology of un system.Skill: Identify fluid electrolyte balance n provide care accordi Attitude: Appreciate anatomical and/or physiological deviate effects on quality ofUnit III: Review of anatom	anatomy inary & eeds & ngly. e tons & its life.	 Embr Struc: Renal Physi Fluid Acid Immu 	yology (1 h ture and fun l circulation ology of ur and electro base baland unology spe	ars) actions ine formation blyte balance ce (3 hrs) ecific to kide	on e		nary system:	
Course Outcome	Program C	2	<u></u>)~~~~				
	Clinician/		Communic ator	Leader and member of the health care team and system			Critical thinker	Researcher
		PO2	PO3	PO4	PO5	P	P O6	PO7
CO-1: Describe about embryology of urinary system.	2	2	2	2	2	2	2	1
CO-2: Explain the structure and functions of organs of urinary system: kidneys, ureters, urinary bladder and urethra	2	2	2	2	2	2	2	1
CO-3: Identify the alternation of disease related to kidneys,	2	2	2	2	2	2		1

	nrinary bladder and and its application in practice.							
	te balance, acid base	2	2	2	2	2	2	1
	CO-5: Discuss the immunology specific to kidney.		2	2	2	2	2	1
IV (20 Hrs)	At the end of unit stu Knowledge: Explain clients with urinary of Skill: Prepare the cli investigations. Collect specimen for investigations. Interpret the reports Assit &/or carry vari procedures correctly adequate explanation anxiety of clients un diagnostic procedure	n the assess conditions. ents for va different of diagnos ous daigno . Attitude n and reliev dergoing in es.	sment of trious tic tests. ositc provide ve nvasive	 Common urgency, pneumat Diagnost -KUB, I' Renal ult endoscop flow stud videouro Interpreta 	aking. assessment, assessment hesitancy, h uria, incontin ic tests-uring VP, nephroto ra sound, C by-cystoscop ly, sphincter dynamics, W	psychologi abnormalit aemturia, p nence, nocti e studies, bl omogram, ra f scan, MR oy, urodynai electromyc vhitaker stu nostic meas	cal assessment ies-dysurea, freq ain, retention, bu uria, polyurea, ar lood chemistry, r etrograde pylogra I, cystogram, ren mics studies- cys ography, voiding dy. (10 hrs) sures. (3 hrs)	urning on urination, nuria, oliguria. (5 hrs) adiological procedures am, renal arteriogram,
	: Assessment of diag	Í						
Course	Outcome	Clinician/ Nurse educator	Outcome Professiona	1 Communic tor	a Leader and member of the health care team and system	Lifelong learner	Critical thinker	Researcher
		PO1	PO2	PO3	PO4	PO5	PO6	PO7
	xplain and demostrate ry taking	3	3	3	3	3	3	2
assessme assessme	n assessment	3	3	3	3	3	3	2
	repare the clients for diagnostic tests.	3	3	3	3	3	3	2
	terprete the reports of ic measures.	2	2	2	2	2	2	1
	erform the nurse's role ostic tests.	3	3	3	3	3	3	1
V (5 Hrs)	At the end of unit stu Knowledge: Explain mechanism of glome diseases. Skill: Identify the ro	n the immu erular vasc	ine ular	GenerationImmutation	al Concept of ne mechanisi	f immunop m of glome	opathology: athology (1 hr) rular vascular dis lomerular vascul	sease ar disease. (4 hrs)

nit V:	t V: Renal immunopathy/ Immunopathology				
	precautions in autoimmune diseases.				
	normal immune response and the				
	Attitude: Educate the clients about				
	and the symptomatology related to it.				
	systems in glomerular vascular diseases				

Unit V: Renal immunopathy/ Immunopathology

Course (Outcome	Program						
		Clinician/ Nurse educator	Professi onal	Communic ator	Leader and member of the health care team and system	Lifelong learner	Critical thinker	Researcher
		PO1	PO2	PO3	PO4	PO5	PO6	PO7
mechani	xplain the immune ism of glomerular • diseases	2	2	2	1	2	1	1
CO-2: Identify the role of mediator systems in glomerular vascular diseases and the symptomatology related to it.		2	2	2	2	2	2	1
CO-3: Explain the clients 2 2		2	2	2	2	2	1	
VI (15 Hrs)	At the end of unit str Knowledge: Descrift disorders of ureters, urethra and their menursing managemen Skill: Identify the cl disorders of ureters, urethra and render ent them. Attitude: Provide re- education related to modifications and pur recurrence to the clic urological disorders.	be differen bladder, a dical, surg t. ients with bladder an fficient can elevant hea diet, life st revention c ents suffer	nt ical and nd re to llth tyle of	Etiology, c pathophys • Urinar • Disord • Urinar • Urinar reflux, • Bladde Conge • Benigr • Ureter ureters • Urethr	elinical man siology, med y tract infect ers for urete y tract infect y dysfunctio (7 hrs) er disorders- nital abnorm n prostrate hy al disorders:	ifestations, d ical, surgica ions- pyelone rs, bladder an ions- ns- urinary re neoplasms, c alities ypertrophy (E	etention, urinary inc alculi, neurogenic b BPH) eteral trauma, conge uma, (6 hrs)	s, related agement of: ary tract infections, ontinence, urinary bladder, trauma,

Congenital anomalies of ureters. (2 Hrs) Unit VI: Urological Disorders and Nursing Management

Course Outcome	Program Outcome								
	Clinician/Nu rse educator				Lifelong learner	Critical thinker	Researcher		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7		
CO-1: Explain etiology, clinical manifestations, diagnosis, and	3	3	3	3	2	2	3		

prognosis, and related pathophysiology, medical, surgical and nursing management of urological disorders.							
CO-2: Identify the clients with disorders of ureters, bladder and urethra and	3	3	3	3	2	2	3
render efficient care to them.							
CO-3: Give relevant health education related to diet, life style modifications and prevention of recurrence to the clients suffering from urological disorders.	3	3	3	3	2	2	3
VIIAt the end of unit study(25to:Hrs)Knowledge: Underseexplain glomerular of medical, surgical & management.Skill: Identify the side symptoms of differe disorders and rendere these clients.Attitude: Help client diet, life style, to pre and promote renal here	tand and lisorders & in nursing gns and nt glomerula specific care t modify the event recurre	 Etiol pathe Glom Acute Rena Rena Rena Rena Rena Rena Rena Polyce Cong 	ogy, c1inica ophysiology aerulo-nephi e Renal failu l calculi (3 l	al manifes , medical, itis- chron ure and ch nrs) hr) hr) athy (2 hr rs (3 hrs) is (2 hrs) c) der's (2 hr	tations, diag surgical and nic, acute, ne ronic renal fa nalignant. (2 s)	anagement nosis, prognosi l nursing mana phritic syndron ailure. (2 hrs) hrs)	gement of
Unit VII: Glomerular disor	ders and nu	irsing manag	ement				
Course Outcome	Program Ou		,				
	-	Professional	Communic ator	Leader and member of the health care team and system		Critical thinker	Researcher
	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO-1: Explain etiology, c1inical manifestations, diagnosis, prognosis, related pathophysiology, medical, surgical and nursing management of glomerular disorders.	3	3	3	3		2	3
CO-2: Identify the signs and symptoms of different glomerular disorders and render specific care to these	3	3	3	3	2	2	3

clients.								
CO-3: Do prepare their die prevent	emonstrate and the client modify et, life style, to recurrence and e renal health.	3	3	3	3	2	2	3
VIII (10 Hrs)	At the end of unit stu Knowledge: Discus & its management. Skill: Recognize ren provide competent c Attitude: Equip sel therapies used in the emergencies.	s renal emer al emergenc are. f with mode	gencies ties & rn f renal	Anuria Acute Poison Traum Urine Acute Hemat	i (2 hrs) renal failure ing (2 hrs)	hrs) on	cies:	
-	II: Management of Re							
Course Outcome		Program Clinician/N urse educator		Communi cator	Leader and member of the health care team and system	Lifelong learner	Critical thinker	Researcher
		PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO-1: Explain renal emergencies & its management.		2	2	2	2	2	3	1
	ecognize renal ncies & provide ent care	2	2	2	2	2	3	1
modern	repare self with therapies used in the nt of renal ncies.	2	2	2	2	2	3	1
IX (10 Hrs)	At the end of unit stu Knowledge: Unders drugs used in the uri Skill: Interpret the e administered. Attitude: Recognize effects of drugs.	tand differe nary disorde ffects of var	nt groups o ers. ious drugs	f • Clas • Indi (5hr	sification (3 cations, con	traindications		fects, toxic effects
Unit IX	: Drugs used in urin	ary disord	ers					
	Outcome		Outcome	Communicator		Lifelong C earner	ritical thinker	Researcher

		PO1	PO2	PO3 F	PO4 PC	05	PO6	PO7	
CO-1: Understand different groups of drugs used in the urinary disorders		2	2	2 2	2 1		2	1	
CO-2: Interpret the effects of various drugs.		2	2	2 2	2 1		2	1	
CO-3: Recognize record & report the effects of drugs.		2	2	2 2	2 1		2	1	
X (10 Hrs)	At the end of unit stu Knowledge: Discuss & care of patients un Skill: Identify the ne treated with dialysis pre, intra and post di accurate adequate re undergoing dialysis. Attitude: Provide n education on life sty of vascular access si Dialysis	s dialysis, pre- indergoing dia eeds of the cli and render et alysis care & cords of clier eccessary hea le modificatio	eparation lysis. ients ffective maintain nts	 Hemo Peritor Dialys Role o Comp Couns Patien 	dialysis- vas neal dialysis is Procedur of nurse- pre lications.	scular acc s. res- steps, e dialysis,	equipme intra and	es, goals (2 hrs) - temporary and ents, maintenan 1 post dialysis.	d permanent.
Course	Outcome	Program Outo	come						
		Clinician/Nur se educator	Professional	Communi tor	ca Leader a member the healtl care tean system	of learn h	long ner	Critical thinke	r Researcher
		PO1	PO2	PO3	PO4	PO5	5	PO6	PO7
	xplain dialysis in terms y, types, principles,	3	3	3	2	2		2	
orepara	biscuss dialysis, tion & care of undergoing dialysis.	3	2	2	2	2		2	3
he clien lialysis ore, intr care & c adequat	lentify the needs of nts treated with and render effective ra and post dialysis maintain accurate re records of clients bing dialysis.	3	2	2	2	2		2	3
CO-4: Panealth e	repare necessary education on life style ration & care of	3	2	2	2	2		2	3

XI (10 Hrs)	At the end of unit students are able to: Knowledge: Understand and explain the procedure of kidney transplant and preparation for and post operative care of the clients with kidney transplant. Skill: Identify the bio psychosocial needs of client undergoing kidney transplant. Render competent care to the clients with kidney transplant. Recognize early signs of transplant rejection, report & intervene promptly. Attitude: Educate the client, family members with kidney transplant.	 Kidney transplantation Nursing management of a patient with Kidney transplantation: Kidney transplantation a historical review Immunology of graft rejections The recipient of a renal transplant (1 hr) Renal preservations Human –Leucocytic Antigen (HLA) typing matching and cross matching in renal transplantation. Surgical techniques of renal transplantations. Chronic renal transplant rejection. Complication after KTP: Vascular and lymphatic, Urological, cardiovascular, liver and neurological, infectious complication. KTP in children and management of pediatric patient with KTP. KTP in developing countries. (5 hrs) Results of KTP. Work up of donor and recipient for renal transplant. Psychological aspect of KTP and organ donations.(2 hrs) Ethics in transplantation.(2 hrs)
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Unit XI: Kidney transplantation

course outcome	Program outcome									
	Clinician/N urse educator	Professional	Communicat or	Leader and member of the health care team and system	Lifelong learner	Critical thinker	Researcher			
	PO1	PO2	PO3	PO4	PO5	PO6	PO7			
CO-1: Understand and explain the procedure of kidney transplant and preparation for and post operative care of the clients with kidney transplant	3	2	2	2	2	2	3			
CO-2: Identify the bio psychosocial needs of client undergoing kidney transplant.	2	2	2	2	2	2	2			
CO-3: Formulate competent care to the clients with kidney transplant.	3	2	2	2	2	3	2			
CO-4: Recognize early signs of transplant rejection, report & intervene promptly	3	3	2	2	2	3	3			
CO-5: Prepare the client, family members with kidney transplant.	3	3	2	2	2	3	3			

 (5 Hrs) to: Knowledge: Understand and explain the need of rehabilitation. Skill: Initiate& Participate in rehabilitation of client undergoing dialogie % bidges transplant 	Tehabilitation: ehabilitation of patient with nephrological problems. Risk factors and revention.(1 hr) ehabilitation of patients on dialysis and after kidney transplant. (2 hrs) ehabilitation of patients after urinary diversions. (1 hr) amily and patient teaching. hr)
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Unit XII: Rehabilitation

		Program outcome							
		Clinician /Nurse educator	Profession al	Communicat or	Leader and member of the health care team and system	Lifelong learner	Critical thinker	Researcher	
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	
CO-1: Understand and explain the need of rehabilitation.		3	2	2	2	2	2	3	
CO-2: Demonstrate & Participate in rehabilitation of client undergoing dialysis & kidney transplant.		3	2	2	2	2	2	3	
CO-3: Explain clients and their families on care & modification in lifestyle.		3	2	2	2	2	2	3	
XIII (10 Hrs)	At the end of unit str Knowledge: Descril management modali children with renal d Skill: Identify renal children and render of Prepare children for diagnostic & treatme Attitude: Educate co lifestyle modification children with renal d	be the ties for the liseases. diseases effective different ent proce are giver n require lisorders.	ne in care. dures. about d by	 Etiology, pathophy Renal Dis infantile 	clinical mar siology, mec seases -UTI, nephrosis, cy	ifestations, lical, surgi ureteral ref vstic kidney	flux, glomerulo n	nanagement of children with ephritis, nephrotic syndrome in renal diseases in	
	II: Pediatric Urinary Dis	1							
Course	Outcome	Program		1 12		1 - 10 -			
1		Clinician Nurse	Professio	onal Comm cator	uni Leader member			inker Researcher	

	Clinician/ Nurse educator		cator	Leader and member of the health care team and system		Critical thinker	Researcher
	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO-1: Describe the management modalities for the children with renal diseases.	3	2	2	2	2	2	3

in childı effective children	lentify renal diseases ren and render e care. Prepare for different tic & treatment res.	3	2	2	2	2	2	3
about lif	emontrate care giver festyle modification l by children with sorders.	3 2	2	2	2	2	2	3
XIV (5 Hrs) Unit : C	At the end of unit stu able to: Knowledge: Describ equipment and requi of the dialysis and K Skill: Participate in establishing policies, procedures in dialysis KTP units. Attitude: Provide fr suggestions for impr in the functioning an dialysis and KTP unit ritical care units – dia	be the rements TP units. s and uitful ovement d the its.	 Philos Polici (1 hr) Team Psych In-ser Ethica 	sophy, ain es Staffin approach osocial as vice educ	ns and obje g pattern, c , functions	ectives. (1 design and lation to sr	physical plan of	Dialysis and KTP units. f ICU, dialysis unit. (1 hr)
course o	Jucome	Program o Clinician/N urse educator	Professional	Commun icator	Leader and member of the health care team and system	Lifelong learner	Critical thinker	Researcher
		PO1	PO2	PO3	PO4	PO5	PO6	PO7
equipme	escribe the ent and requirements ialysis and KTP	2	2	2	2	1	1	1
establish	Explain about hing policies, res in dialysis and its.	2	2	2	2	1	1	1
suggesti in the fu	elect fruitful ions for improvement inctioning and the and KTP units.	3	2	2	2	2	2	1
XV (5 Hrs) At the end of unit students are able to: Knowledge: Explain the quality assurance and role of advance nurse practitioner in nephrological nursing. Skill: Establish and practice professional practice standards in nephrological nursing.			• F • F • (Role of adv Professiona	ance pract l practice trol in nep	1 0	rsing practice. (1 hr) logical nursing. (1hr) ng.(1 hr)	

Attitude: Perform n nephrology unit.	ursing audit	t in					
Unit XV: Quality assurance							
course outcome	Program outcome Clinician/N Professional urse educator		Communica Leader and		Lifelong learner	Critical thinker	Researcher
	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO-1: Explain the quality assurance and role of advance nurse practitioner in nephrological nursing.	2	3	2	2	2	2	1
CO-2: Formulate and practice professional practice standards in nephrological nursing.	3	3	2	2	2	2	1
CO-3: Elaborate nursing audit in nephrology unit.	3	3	2	2	2	2	1

TEACHING STRATEGY:

Total Hours: 1110

Theory Hours: 150

Clinical Hours: 960

TEACHING METHOD:

• Lectures, Seminars, Case presentation & discussion, Clinical observation, SISA, IDCD and Syndicate Journal Club

A.V. AIDS:

• OHP, LCD, Posters, Blackboard, Video Assisted Teaching / Learning ,

AREA ANDDISTRIBUTION OF CLINICAL HOURS:

Sr. No.	Dept / Unit	No. of weeks	Total hours
1	Nephrology Ward	б	180
2	Pediatrics	2	60
3	Critical Care Unit	2	60
4	Urology Ward	6	180
5	Dialysis Unit	4	120
6	Kidney Transplantation Unit	2	60
7	URO OT	2	60
8	Emergency Wards	2	60
9	Uro Nephro OPDs	4	120
10	Diagnostic Labs	2	60
Total		32 weeks	960 hours

ASSIGNMENTS:

Theory:

Sr. No.	Assignment	No./Quantity	Marks per Assignment	Total Marks
1	Seminar	Four	1X50	200
			Total Marks	200

Sr. No.	Assignment	No./Quantity	Marks per Assignment	Total Marks
1	Teaching learning module preparation (Group work)	One	1X25	25
2	Case study	One	1X25	25
3	Case Presentation	One	1X50	50
4	Nursing Care Plans	Two	1X25	50
5	Speciality Drugs Study (Minimum 20 drugs)	One	1X50	50
6	Speciality Procedure Evaluation	Two	1X25	50
7	Clinical Performance Evaluation	One	1X100	100
8	Specific Day celebrations (group work)	One	1X25	25
			Total Marks	375

RECOMMENDED BOOKS:

- Text Book of Medical Surgical Nursing Brunner and Suddarth.
- Medical Surgical Nursing Clinical Positive Out Joyce and Black.
- Medical Surgical Assessment and Management of clinical problems Lewis, Colliner.
- Medical Surgical Nursing an integrated approach Write L. and Delmar.
- Pharmacology and Pharmacotherapeutics Satoskat and Bhandarkar.
- Text book of medical surgical nursing, S.N. Chugh, Avichal Publishing Company.