

CLINICAL SPECIALITY-II
NEPHRO –UROLOGY NURSING

Placement : II Year M.Sc. Nursing

Hours of Instruction

Theory : 150 Hrs

Practical : 950 Hrs

Total : 1100 Hrs

AIM :

The course is designed to assist students in developing expertise and in depth understanding in the field of Nephro and Urological Nursing. It will help students to develop advanced skills for nursing intervention in various nephro and urological conditions. It will enable the students to function as a nephro and urology nurse practitioner / specialist and provide quality care. It will further enable the students to function as educator, manager and researcher in the field of nephro and urology nursing.

OBJECTIVES :

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

1. Appreciate trends and issues related to nephro and urological nursing.
2. Describe the epidemiology, aetiology, pathophysiology and diagnostic assessment of nephro and urological conditions.
3. Perform physical, psychosocial and spiritual assessment.
4. Assist in various diagnostic, therapeutic and surgical intervention.
5. Provide comprehensive care to patients with nephro and urological conditions.
6. Describe various drugs used in nephro and urological conditions and nursing responsibilities.
7. Demonstrate skill in handling various equipments / gadgets used for patients with nephro and urological conditions.
8. Appreciate team work & coordinate activities related to patient care.
9. Practice infection control measures.
10. Identify emergencies and complication and take appropriate measures.
11. Assist patients and their family to cope with emotional distress, grief, anxiety and spiritual needs.
12. Discuss the legal and ethical issues in nephro and urological conditions.
13. Identify the sources of stress and manage burnout syndrome among health care workers.
14. Appreciate the role of alternative system of medicine in the care of patient.
15. Incorporate evidence based nursing practice and identify the areas of research in the field of nephro and urological nursing.
16. Teach and supervise nurses and allied health workers.
17. Design a layout of kidney transplant unit and dialysis unit.
18. Develop standards of nephro and urological nursing practice

COURSE CONTENT

UNIT	TOPIC	HRS	METHOD
I	<p>Introduction</p> <ul style="list-style-type: none"> • 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. <p>Evidence based nursing and its application in nephro and urological nursing. (to be incorporated in all the units).</p>	5	<p>Lecture & discussion -do- -do- Panel discussions</p>
II	<p>Epidemiology</p> <ul style="list-style-type: none"> • Major health problems – urinary dysfunction, urinary tract infections, glomerular 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. <p>Alternate system of medicine / complimentary therapies.</p>	5	Lecture and discussions
III	<p>Review of anatomy and physiology of urinary system</p> <ul style="list-style-type: none"> • Embryology • Structure and functions • Renal circulation • Physiology of urine formation • Fluid and electrolyte balance • Acid base balance • Immunology specific to kidney 	5	Lecture Seminars
IV	<p>Assessment and diagnostic measures</p> <ul style="list-style-type: none"> • History taking • Physical and psychosocial assessment <p>Assessment of common abnormalities – dysuria, frequency, enuresis, urgency, hesitancy, haematuria, pain, retention, burning on urination, pyuria, incontinence, nocturia, polyuria, oliguria, anuria.</p>	20	Lecture and discussions
IV	<ul style="list-style-type: none"> • 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, urodynamic studies – cystometrogram, urinary flow studies, sphincter electromyography, voiding pressure flow study, videourodynamics, Whitaker study. <p>Interpretation of diagnostic measures Nurse's role in diagnostic tests.</p>		

UNIT	TOPIC	HRS	METHOD
V	Renal immunopathy/ Immunopathology <ul style="list-style-type: none"> • General concept of immunopathology • Immune mechanism of glomerular vascular disease. • Role of mediator systems in glomerular vascular disease. 	5	Lecture and discussions
VI	Urological disorders and Nursing Management Etiology, clinical manifestations, diagnosis, prognosis, related pathophysiology, medical, surgical and nursing management of – <ul style="list-style-type: none"> • Urinary tract infections • Pyelonephritis, • Disorders of ureter, bladder and urethra • Urinary dysfunctions – urinary retention, urinary incontinence, urinary reflux • Bladder disorders – neoplasms, calculi, neurogenic bladder, trauma, congenital abnormalities • Benign prostate hypertrophy (BPH) • Ureteral disorders – ureteritis, ureteral trauma, congenital anomalies of ureters • Urethral disorders – tumours, trauma, congenital anomalies of ureters 	15+3	Lecture, discussion, seminar and symposium
VII	Glomerular disorders and nursing management Etiology, clinical manifestations, diagnosis, prognosis, related pathophysiology, medical, surgical and nursing management of – <ul style="list-style-type: none"> • Glomerulonephritis – acute and chronic, nephrotic syndrome • Acute renal failure and chronic renal failure • Renal calculi • Renal tumors – benign and malignant • Renal trauma • Renal abscess • Diabetic nephropathy • Vascular disorders • Renal tuberculosis • Polycystic kidney disease • Congenital disorders • Hereditary renal disorders 	25	Lecture, discussion, seminar and symposium
VIII	Management of renal emergencies <ul style="list-style-type: none"> • Anuria • Acute renal failure • Poisoning • Trauma • Urine retention • Acute graft rejection • Haematuria Nurse's role	10+2	Lecture, discussion and symposium

UNIT	TOPIC	HRS	METHOD
IX	Drugs used in urinary disorders <ul style="list-style-type: none"> • Classification • Indications, contraindications, actions and effects, toxic effects • Role of nurse 	10	Lecture & discussion
X	Dialysis <ul style="list-style-type: none"> • History, types, principles, goals <ul style="list-style-type: none"> - Haemodialysis – vascular access sites – temporary & permanent - Peritoneal dialysis • Dialysis procedures – steps, equipments, maintenance • Role of nurse – pre dialysis, intra and post dialysis • Complications • Counseling • Patient education • Records and reports 	10	Lecture, discussion and demonstration
XI	Nursing management of a patient with kidney transplantation <ul style="list-style-type: none"> • Kidney transplantation – a historical review • Immunology of graft rejection 		Lecture, discussion and symposium
XI	<ul style="list-style-type: none"> • The recipient of a renal transplant • Renal preservation • Human Leucocyte Antigen (HLA) typing matching and cross matching in renal transplantation. • Surgical techniques of renal transplantation • Chronic renal transplant rejection • Complications after KTP : Vascular and lymphatic, Urological, Cardiovascular, liver and Neurological, infectious complication • KTP in children and management of paediatric patients with KTP • KTP in developing countries • Result of KTP • Work up of donor and recipient for renal transplant • Psychological aspects of KTP and organ donation • Ethics in transplants • Cadaveric transplantation 	10	
XII	Rehabilitation of patients with nephrological problems <ul style="list-style-type: none"> • Risk factors and prevention • Rehabilitation of patients on dialysis and after kidney transplant • Rehabilitation of patients after urinary diversions • Family and patient teaching 	5	Lecture & Discussion

UNIT	TOPIC	HRS	METHOD
XIII	Paediatric urinary disorders Etiology, clinical manifestations, diagnosis, prognosis, related pathophysiology, medical, surgical and nursing management of children with Renal diseases – <ul style="list-style-type: none"> • UTI • Ureteral reflux • Glomerulonephritis • Nephrotic syndrome • Infantile nephrosis • Cystic Kidneys • Familial factors in renal diseases in childhood • Haemolytic uraemic syndrome • Benign recurrent haematuria • Nephropathy and Wilm’s trumour 	10	Lecture & discussion
XIV	Critical care units – dialysis, KTP unit <ul style="list-style-type: none"> • Philosophy, aim and objectives • Policies, staffing pattern, design and physical plan of dialysis and KTP unit • Team approach and functions • Psychosocial aspects in relation to staff and clients of ICU, dialysis unit • In service education • Ethical and legal issues 	5	Lecture & discussion
XV	<ul style="list-style-type: none"> • Quality assurance in nephrological nursing practice • Role of advance practitioner in nephrological nursing • Professional practice standards • Quality control in nephrological nursing • Nursing audit 	5	Lecture & discussion

PRACTICALS

Total – 900 hrs

1 week = 30 hrs

SL NO	DEPARTMENT / UNIT	NO. OF WEEK	TOTAL HOURS
1	Nephrology ward	6	180 hrs
2	Paediatrics	2	60 hrs
3	Critical care unit	2	60 hrs
4	Urology ward	6	180 hrs
5	Dialysis unit	4	120 hrs
6	Kidney transplant unit	2	60 hrs
7	Uro OT	2	60 hrs
8	Emergency wards	2	60 hrs
9	Uro Nephro OPDs	4	120 hrs
10	Diagnostic lab	2	60 hrs
	Total	32 weeks	960 hrs

PROCEDURES

I Procedures observed

1. CT scan
2. MRI
3. Radiographic studies
4. Urodynamics
5. Haemodialysis & Peritoneal dialysis
6. Renal surgeries
7. Lithotripsy (Extra corporeal Shock Wave Lithotripsy)

II. Procedures assisted

1. Blood transfusion
2. IV cannulation therapy
3. Arterial catheterization
4. Insertion of central line / CVP line
5. Connecting lines for haemodialysis
6. Peritoneal dialysis
7. Renal biopsy
8. Endoscopies – bladder, urethra

III Procedures performed

1. Health assessment
2. Insertion of urethral and suprapubic catheters
3. Urine analysis
4. Catheterization
5. Peritoneal dialysis
6. Bladder irrigation
7. Care of ostomies
8. Care of urinary drainage
9. Bladder training
10. Care of vascular access
11. Setting up haemodialysis machine and starting, monitoring and closing dialysis
12. Procedures for prevention of infection :
13. Hand washing, disinfection & sterilization surveillance and fumigation and universal precautions
14. Collection of specimens

15. Administration of drugs: IM, IV injection, IV cannulation & fixation of infusion pump, calculation of dosages, blood administration, monitoring fluid therapy, electrolyte imbalance.
16. Nutritional needs, diet therapy & patient education
17. Counseling

IV. Other Procedures:

PRACTICUM

The students will :

1. Be posted in Nephrology and Urology wards, emergency wards(ICU), dialysis center, Kidney transplant unit, Paediatric ward, Operation theatre, Nephro and urology OPDs.
2. Care for patients undergoing dialysis and kidney transplant and write one case study and one case presentation in Nephrology ward.
3. Care for paediatric cases with Nephro and Urological disorder and write one case study.
4. Care for patients with urological disorders and write atleast one case study & one case presentation.
5. Present the report of experience at dialysis and transplant unit. And procedures observed / assisted in OPDs.
6. Practice the following nursing procedures -
 - Health assessment of patients with Nephro and urological nursing
 - Insertion of urethral and suprapubic catheters
 - Urine analysis
 - Catheterization
 - Peritoneal dialysis
 - Bladder irrigation
 - Care of ostomies
 - Care of urinary drainage
 - Bladder training
 - Care of vascular access
 - Setting up haemodialysis machine and starting, monitoring and closing dialysis
 - Perform urodynamics studies
 - Procedures for prevention of infection :
 - Hand washing, disinfection & sterilization surveillance and fumigation and universal precautions
 - Collection of specimens
 - Administration of drugs: IM, IV injection, IV cannulation & fixation of infusion pump, calculation of dosages, blood administration, monitoring fluid therapy, electrolyte imbalance.
 - Nutritional needs, diet therapy & patient education
 - Counseling

CLINICAL EXPERIENCE

Total – 900 hrs

1 week = 30 hrs

S N	DEPARTMENT / UNIT	NO. OF WEEK	TOTAL HOURS
1	Nephrology ward	6	180 hrs
2	Paediatrics	2	60 hrs
3	Critical care unit	2	60 hrs
4	Urology ward	6	180 hrs
5	Dialysis unit	4	120 hrs
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7	Uro OT	2	60 hrs
8	Emergency wards	2	60 hrs
9	Uro Nephro OPDs	4	120 hrs
10	Diagnostic lab	2	60 hrs
	Total	32 weeks	960 hrs

INTERNAL ASSESSMENT PROFORMA & GUIDELINE

CLINICAL SPECIALITY – II

M.Sc. NURSING

EVALUATION :-

I. Internal Assessment : (Theory)

Mid Term Examination	- 50 marks
Pre Final Examination	- 75 marks
Seminar	- 50 marks
Project Work	- 75 marks

250 marks

II. Internal Assessment (Practical)

Maximum Marks 100

PRACTICUM :-

- | | |
|---|-------------|
| 1. Case Study – Any two (50 Marks each) | Marks – 100 |
| 2. Case Presentation – Two (50 Marks each) | Marks – 100 |
| 3. Report presentation Two (50 marks each)
(Transplant unit and Urology OPD) | Marks – 100 |
| 4. Clinical Evaluation Comprehensive Nursing Care.
(100 Marks each Any three)
(i.e. Urology ward, Nephrology ward, Dialysis Unit, Transplant Unit, Paediatric ward and OPD) | Marks - 300 |

PRACTICAL EXAM :-

1. Mid Term Exam. Marks – 50
2. Pre Final Exam. Marks – 100

Internal assessment – Practical

Total of Clinical assignments, clinical evaluation, and two practical exam marks , converted out of 100

M.Sc. NURSING : CLINICAL SPECIALITY – II

PROFORMA & GUIDELINE FOR CASE STUDY

Area :- Nephro / Urology (Maximum Marks – 50)

01. Selection of patient.
02. Demographic data of the patient.
03. Medical history past and present illness.
04. Comparison of the patient's disease with book picture.
 - a) Anatomy and physiology.
 - b) Etiology.
 - c) Patho physiology.
 - d) Signs and symptoms.
 - e) Diagnosis - provisional & final
 - f) Investigations
 - g) Complications & prognosis.
05. Management:- Medical or Surgical
 - a) Aims and objectives.
 - b) Drugs and Medications.
 - c) Diet.
06. Nursing Management (Nursing Process approach)
 - a) Aims and objectives.
 - b) Assessment and specific observations.
 - c) Nursing diagnosis.
 - d) Nursing care plan (Short term & long term with rationale.)
 - e) Implementation of nursing care with priority.
 - f) Health teaching.
 - g) Day to day progress report & evaluation.
 - h) Discharge planning.
07. Drug Study.
08. Research evidence.
09. Summary and conclusion.
10. Bibliography.

EVALUATION CRITERIA FOR CASE STUDY.

(Maximum Marks – 50)

Sr. No.	Criteria	Marks allotted.	Marks obtained	Total
01.	Assessment	5		
02.	theoretical knowledge about disease	5		
03.	Comparative study of the patient's disease & book picture.	10		
04.	Management: Medical or Surgical.	5		
05.	Nursing Process.	15		
06.	Drug study.	3		
07.	Summary & conclusion including research evidence.	5		
08.	Bibliography.	2		
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	Total	50		

Signature of Student

Signature of Clinical supervisor

M Sc NURSING: CLINICAL SPECIALITY – II

PROFORMA & GUIDELINE FOR CASE PRESENTATION

I] Patient Biodata

Name, Age, Sex, Religion, Marital status, Occupation, Source of health care, Date of admission, Provisional Diagnosis, Date of surgery if any.

II] Presenting complaints

Describe the complaints with which the child has been brought to the hospital

III] Socio-economic status of the family: Monthly income, expenditure on health, food, education etc.

IV] History of Illness (Medical & Surgical)

- i) History of present illness – onset, symptoms, duration, precipitating/aggravating factors
- ii) History of past illness surgery, allergies, medications etc.
- iii) Family history – Family tree, history of illness in the family members, risk factors, congenital problems, psychological problems etc.

V] Diagnosis: (Provisional & confirmed).

Description of disease: Includes the followings

1. Definition.
2. Related anatomy and physiology
3. Etiology & risk factors
4. Path physiology
5. Clinical features.

VI] Physical Examination of Patient (Date & Time)

Physical examination: with date and time.

Clinical features present in the book Present in the patient

VII] Investigations

Date Investigation done Results Normal value Inferences

VIII] Management - (Medical /Surgical)

- a) Aims of management
- b) Objectives of Nursing Care Plan

IX] Treatment:

S.No

Drug (Pharmacological name)

Dose Frequency/ Time

Action Side effects & drug reaction

Nurse's responsibility

- Medical or Surgical Management.
- Nursing management

X] Nursing Care Plan: Short Term & Long Term plan.

Assessment Nursing

Diagnosis

Objective Plan of care

Rationale Implementation Evaluation

XI] Discharge planning:

It should include health education and discharge planning given to the patient.

XII] Prognosis of the patient:

XIII] Summary of the case:

IVX] References:

EVALUATION CRITERIA FOR CASE PRESENTATION

Maximum Marks – 50)

SN	Criteria	Marks Allotted	Marks Obtained	Total
1	Content Subjective & objective data.	08		
2	Problems & need Identified & Nsg. Care Plan	15		
3	Effectiveness of presentation	5		
4	Co-relation with patient & Book i. e. research evidence.	10		
5	Use of A. V. Aids	5		
6	Physical arrangement	2		
7	Group participation	3		
8	Bibliography & references	2		
	Total	50		

(Note :- Two presentations of 50 marks each from Nephrology & urology.)

CLINICAL EVALUATION: COMPREHENSIVE NURSING CARE

(Maximum Marks – 100 each

area.)

Name of the Student

Year: II Year M.Sc Nursing

Duration of Experience:

SN	Criteria	1	2	3	4	5
I	UNDERSTANDING OF PATIENT AS PERSON A. Approach. 1. Rapport with patient/ family members. 2. Collects significant information B. Understanding of patient's health problems. 1. Knowledge about disease condition. 2. Knowledge about investigations. 3. Knowledge about treatment. 4. Knowledge about progress of the patient.					
II	NURSING CARE PLAN A. Assessment of the condition of the patient. 1. History taking – past & present health and illness. 2. Specific observation of the patient. 3. Nursing diagnosis. B. Development of the short – term & long term Nursing care plans. 1. Identification of all problems in the patient/ family. 2. Prioritization & implementation of the plans. 3. Evaluation of the care given & replanning					
III	TECHNICAL SKILL 1. Economical & safe adaptation to the situation & available facilities. 2. Implements the procedure with skill speed & completeness.					
IV	RECORDING & REPORTING 1. Prompt, precise, accurate & relevant. 2. Maintenance of clinical experience file.					
V	HEALTH TEACHING 1. Incidental/ planned teaching with principles of teaching & learning. 2. Uses visual aids appropriately					
VI	PERSONALITY 1. Professional appearance (uniform, dignity, tact fullness interpersonal relationship, punctuality etc. 2. Sincerely, honesty & Sense of responsibility.					
	TOTAL MARKS					

Positive & Negative aspects.

Signature of Student

Signature of Clinical supervisor