

**Curriculum  
for  
Practical :- First Year  
Diploma in Dialysis Technician**

<b>Practical</b>	<b>Topics</b>
	1. Orientation for Dialysis technician towards importance & need of the technician.
	2. Care of Unconscious patient.
	3. Monitoring Temperature (manual).
	4. Monitoring Pulse (manual).
	5. Monitoring Respiration (manual).
	6. Monitoring BP (manual).
	7. Monitoring Temperature (with Multiparamonitor).
	8. Monitoring Pulse (with Multiparamonitor).
	9. Monitoring Respiration (with Multiparamonitor).
	10. Monitoring BP (with Multiparamonitor).
	11. Obtaining femoral access.
	12. Obtaining jugular access.
	13. Process of Haemodialysis & peritoneal dialysis.
	14. Basic life support (BLS).

## Details of Curriculum for Second Year Diploma in Dialysis Technician

<b>PAPER 1st Theory</b>	Topics	Hours.
<b>1.Only relevant surgical &amp; medical conditions (relevant to dialysis technician but other than nephrology).</b>	<p>1. History taking. General examination of the patient. Filling Case-sheet. Common clinical words.</p> <p>2. Hypertension:- Def, Causes, Pathology, Clinical lectures, Investigation &amp; Management.</p> <p>3. Hypotension :- Def, Causes, Pathology, Clinical lectures, Investigation &amp; Management.</p> <p>4. Diabetes mellitus :- Def, Causes, Pathology, Clinical lectures, Investigation &amp; Management.</p> <p>5. <u>Diseases of blood</u> :- Anaemia, Basics of coagulation Bleeding disorders &amp; Haemophilia.</p> <p>6. <u>Respiratory Tract</u> :- Pneumonia, Tuberculosis, B.asthma, COPD, Bronchiectasis, Collapse of lung, Pneumonitis, Pleural effusion, Pneumothorax, Empyema thoracis, Cancer lung.</p> <p>7. <u>Diseases of GIT &amp; Liver &amp; GB</u> :-Reflux Oesophagitis, Peptic ulcers, Gastritis, Instestinal Obstruction, Hepatitis, Cirrhosis of liver, Cholecystitis.</p> <p>51 <u>Diseases of Nervous system</u>:- Stroke, Meningo-encephalitis, Glasgow coma scale, Epilepsy, Head Injury.</p> <p>52 <u>Diseases of Urinary tract</u>:- Urolithiasis, Benign prostatic hyperplasia.</p> <p>53 <u>Endocrine system</u> :- Diabetes mellitus, hypo &amp; Hyper thyroidism.</p> <p>54 <u>Miscellaneous</u>:- Hypo &amp; Hyper Natraemia, Hypo &amp; Hyper Kalaemia, Hypo &amp; Hyper Calcaemia.</p> <p>55 <u>Infections diseases</u> :- TB, Typhoid, Malaria, Dengue fever, Leprosy, AIDS, Amoebiasis.</p>	15 Hrs 05 Hrs 02 Hrs 10 Hrs 30 Hrs 50 Hrs 40 Hrs 30 Hrs 13 Hrs 10 Hrs 10Hrs 30 Hrs

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<b>PAPER 1st Theory</b>	Topics	Hours.
<b>2.Nursing Procedures like vital recording, IM/IV/SC injection, Oxygen therapy, Nebulization, IV infusion.</b>	1. Temperature monitoring & Fever.	02 Hrs
	2. Pulse monitoring.	02 Hrs
	3. BP monitoring.	02 Hrs
	4. Respiration monitoring.	01 Hrs
	5. Types of Injection routes.	01 Hrs
	6. IM Injection.	01 Hrs
	7. IV Injection.	01 Hrs
	8. SC Injection.	01 Hrs
	9. Oxygen Therapy.	03 Hrs
	10. Nebulization	03 Hrs
	11. IV Infusion (Also with infusion pump).	01 Hrs
	12. Care of Unconscious patient.	02 Hrs

## Details of Curriculum for Second Year Diploma in Dialysis Technician

<b>PAPER 2nd Theory</b>	Topics	Hours.
<b>1. Diseases related to Nephrology.</b>	1. ARF- Definition, causes, types, clinical features, investigations & management.	20 Hrs
	2. CRF – Definition, causes, types, clinical features, investigations & management.	20 Hrs
	3. Basics of various types of Glomerulonephritis.	30 Hrs
	4. Basics of Tubulo-interstitial diseases.	20 Hrs
	5. Diabetic Nephropathy : Definition, Pathology, Clinical features, Investigations & management.	15 Hrs
	6. Hypertensive nephropathy : Definition, Pathology, Clinical features, Investigations & management.	15 Hrs
	7. Basics idea of Analgesic & Heavy metal nephropathy	05 Hrs
	8. Urolithiasis – Definition, types, causes, effect on kidneys, Clinical features, Investigations & management.	20 Hrs
	9. Urinary tract infection & urosepsis.	10 Hrs
	10. Basics of Congenital abnormalities of kidney.	20 Hrs
	11. Nephro toxic drugs.	10 Hrs
	12. Hypo & Hyper natraemia.	05 Hrs
	13. Hypo & Hyper Kalaemia.	05 Hrs
	14. Basics of acidosis (metabolic & respiratory).	05 Hrs
	15. Basics of Alkalosis (metabolic & respiratory).	05 Hrs
	16. Basics of other dys-electronaemia.	20 Hrs

## Details of Curriculum for Second Year Diploma in Dialysis Technician

<b>PAPER 2nd Theory</b>	Topics	Hours.
<b>2.Details about dialysis (Haemodialysis &amp; CAPD) procedure.</b>	1. Types of dialysis & role of dialysis technician.	05 Hrs
	2. Details about dialysis machine & other instruments/equipments used in dialysis.	25 Hrs
	3. Details about dialysate fluids & dialyzers.	10 Hrs
	4. Details about RO plant & water composition used in dialysis.	10 Hrs
	5. <u>Haemodialysis</u> - Indications, preprocedure care, detail procedure, post procedure care, interaction with patients, complications & their management, record keeping.	50 Hrs
	6. <u>Peritoneal dialysis</u> - Indications, preprocedure care, detail procedure, post procedure care, interaction with patients, complications & their management, record keeping.	50 Hrs
	7. Re-dialysis Assessment.	05 Hrs
	8. Anticoagulants used in dialysis.	10 Hrs
	9. Emergency drugs used during dialysis.	20 Hrs
	10. Venous accesses: types, procedure detail & role of technician.	40 Hrs
	11. Nutritional advices in a patient of dialysis.	05 Hrs

<b>PAPER 2nd Theory</b>	Topics	Hours.
<b>3. Basic biomedical engineering physics of dialysis machine, multipara monitors.</b>	1. Basics of biomedical physics of dialysis machine.	40 Hrs
	2. Basics of biomedical physics of multi-para monitors.	20 Hrs

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<b>Practical</b>	<b>Topics</b>
	1. Hand on training of IM Injection.
	2. Hand on training of IV Injection.
	3. Hand on training of SC Injection.
	4. Use of Infusion pump.
	5. Hand on training of Nebulisation.
	6. Use of Defibrillator.
	7. Hands on training of femoral & jugular access.
	8. Hand on training of Assisting A-V fistula making.
	9. Hands on training of peritoneal dialysis (Pre, Intra & Post procedure role).
	10. Hands on training of Haemodialysis. (Pre, Intra & Post procedure role).
	11. Hands on training of use of regular & emergency drugs used in dialysis.
	12. Care & keeping of Instruments/equipments & consummables use in dialysis.
	13. Record keeping.