College of Physicians and Surgeons of Mumbai

Syllabus for CPS-PG-Course

DDIAB-DIPLOMA IN DIABETOLOGY

College of Physicians and Surgeons of Mumbai

CPS House, Dr. E. Borges Marg, Parel, Mumbai – 400012.

DDIAB-DIPLOMA IN DIABETOLOGY

COURSE DESCRIPTION

Eligibility :A candidate should possess MBBS degree/ equivalent degree as per provisions of Indian Medical Council Act.

Duration :2 Years

Objectives:

At the end of the course, students should be able to acquire following knowledge (including higher cognitive domain) and skills

A. Cognitive domain

1. Gross and radiological anatomy of abdomen and various organs of GI system and endocrine system
2. Physiology of digestive system
3. Physiology of pancreatic function
4. Glucogenesis, glycolysis and other details of glucose metabolism
5. Fat and protein metabolism
6. Role of insulin and other hormones in metabolism
7. Metabolism in presence and absence / deficiency of insulin
8. Types of diabetes
9. Aetio-pathogenesis of diabetes
10. Risk factors for diabetes
11. Insulin secretion
12. Factors affecting insulin secretion
13. Insulin transport
14. Laboratory investigations in diabetes
15. Diagnostic criteria for diabetes
16. Management and treatment of all types of diabetes
17. Complications of diabetes
18. Primordial, primary, secondary and tertiary prevention for diabetes
19. Screening techniques for population for early detection of diabetes

20. Antidiabetic drugs, their doses, pharmacokinetics and interactions with other drugs
21. Side effects and contraindications for anti diabetic drugs
22. Ethical issues
23. Medico-legal issues

B. Affective domain

1. Should develop communication skills to interact effectively with patients, relatives and colleagues and other hospital staff.
2. Should always adopt ethical principles and practices
3. Should be able to work a member of a team for effective care delivery system
4. Should develop an attitude to contribute effectively in the improvement, maintenance of health care delivery system of the country and to contribute in improving the health indicators of our country in comparison with the other developed world.

C. Psychomotor domain

At the end of the course students should acquire following skills

1. Acquire sufficient clinical skills, including history taking, clinical examination for the correct diagnosis of diabetes.
2. Identify required laboratory investigations and interpret them.
3. Interpret and manage various blood gases abnormalities in a diabetic patient.
4. Collection of blood and other samples for diagnosis of diabetes and its complications
5. Management of diabetes and its complications
6. Common procedures, like endotracheal intubation and pneumo-thoracic drainage / aspiration etc.
7. Recognize emergency situations in intensive care, respond to these appropriately and perform basic critical care monitoring and therapeutic procedures.

8. Effective management of keto acidosis, hypoglycaemia and other emergency / complications in a diabetic patient

SYLLABUS

Syllabus for the course will include every aspect of theory and practice of clinical Diabetes.

A. Basic Sciences

1. Gross and radiological anatomy of various organ system
2. Physiology of digestive system
3. Physiology of endocrine system
4. Physiology of pancreatic function
5. Various cycles in metabolism of carbohydrates, fats and proteins
6. Glucogenesis, glycolysis and other details of glucose metabolism
7. Physiology of insulin secretion
8. Role of insulin and other hormones in metabolism
9. Metabolism in presence and absence / deficiency of insulin
10. Aetio-pathogenesis of diabetes
11. Risk factors for diabetes

B. Diabetology

1. Factors affecting insulin secretion
2. Laboratory investigations in diabetes
3. Glycosuria
4. Other causes of glycosuria
5. History of Diabetes.
6. Epidemiology of Diabetes with special reference to data from India.
7. Insulin biosynthesis, structure, storage and release.
8. Insulin transport and actions.
9. Classification of Diabetes.

10. Signs and symptoms in diabetes
11. Diagnosis of diabetes, various lab investigations, their interpretations
12. Investigations in monitoring Diabetes.
13. Pathogenesis of micro-vascular disease in Diabetes.
14. Eye in Diabetes, diabetic retinopathy.
15. Diabetic Nephropathy
16. Nervous system and Diabetes.
17. Pathogenesis of macro-vascular disease in Diabetes.
18. Cardio-Diabetology
19. Hypertension in Diabetes
20. Risk of coronary heart disease and diabetes
21. Myocardial infarction and diabetes
22. Foot problems in Diabetes.
23. Diabetes and Obesity.
24. Diabetic Dyslipidemia
25. Dietary management in Diabetes.
26. Exercise in Diabetes
27. Oral Hypoglycemic agents in Diabetes.
28. Insulin therapy in Diabetes.
29. Diabetes in young
30. Pregnancy and Diabetes.
31. Sexual dysfunction in Diabetes
32. Surgery and Diabetes.
33. Special infections in Diabetes
34. Skin disorders in Diabetes
35. Digestive system and Diabetes.
36. Urological problems in Diabetes.
37. Diabetes and Immune system
38. Psychological impact of Diabetes
39. Patient education in Diabetes
40. Hyperglycemic emergencies in Diabetes

41. Hypoglycemia
42. Pancreas transplantation
43. Prevention of Diabetes, primary, primordial, secondary and tertiary.
44. Genetics in Diabetes.
45. Acute complication like Ketaocidosis.
46. Investigative modalities (CGM Setc.)
47. Screening for diabetes
48. Public health aspects and control of diabetes in the community
49. National health programmes in relation to diabetes and other non communicable diseases

Rotation:

Students can be posted in the department of general medicine for maximum period of 6 months.

DDIAB : DIPLOMA IN DIABETOLOGY

EXAMINATION PATTERN

Theory Examination:

PAPER I	PAPER II	PAPER III
Basic sciences, laboratory investigations, diagnosis and treatment	Complications of diabetes, prevention and treatment of complications, prevention	prevention and treatment of complications, recent advances, public health aspects, National Health Programme
Section I	**Section I**	**Section I**
Q.1. 10 Marks Q.2. 10 Marks Q.3. 10 Marks Q.4. 10 Marks Q.5. 10 Marks **Total 50 Marks**	Q.1. 10 Marks Q.2. 10 Marks Q.3. 10 Marks Q.4. 10 Marks Q.5. 10 Marks **Total 50 Marks**	Q.1. 10 Marks Q.2. 10 Marks Q.3. 10 Marks Q.4. 10 Marks Q.5. 10 Marks **Total 50 Marks**
Section II	**Section II**	**Section II**
Q.6. 10 Marks Q.7. 10 Marks Q.8. 10 Marks Q.9. 10 Marks Q.10. 10 Marks **Total 50 Marks**	Q.6. 10 Marks Q.7. 10 Marks Q.8. 10 Marks Q.9. 10 Marks Q.10. 10 Marks **Total 50 Marks**	Q.6. 10 Marks Q.7. 10 Marks Q.8. 10 Marks Q.9. 10 Marks Q.10. 10 Marks **Total 50 Marks**
Total Theory = 300 Marks, Passing = 150 (i.e. 50%) Marks aggregate in Theory		

Practical Examination:		**Marks**
Paper - IV	Clinical Practical – Long case 1	100
Paper - V	Oral & Viva	100
Paper - VI	Short cases -2	100
Total Marks	**(Aggregate marks for passing is 50% out of total.)**	**300**