





Model Curriculum Diabetes Assistant

SECTOR: Healthcare SUB-SECTOR: Social Work & Community Health **OCCUPATION:** Counselling REF ID: HSS/Q8703, v1.0 **NSQF LEVEL: 4**











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Diabetes Assistant

CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a "<u>Diabetes Assistant</u>", in the "<u>Healthcare</u>" Sector/ Industry and aims at building the following key competencies amongst the learner.

Program Name	Diabetes Assistant		
Qualification Pack Name & Reference ID.	HSS/Q8703, v1.0		
Version No.	1.0	Version Update Date	16/12/2019
Pre-requisites to Training	XII (Science or Home	Science)	
Training Outcomes	 Perform the cl responsibilities Identify risk fa prevention. Provide inform and lifestyle m Assist the phy Diabetes Self- individuals suf Maintain patie Maintain a saf Apply biomedia and procedure Maintain inter and their famil Maintain profes 	sician in development and Management Education (fering from pre-diabetic a nt's clinical records. Te, healthy and secure work ical waste disposal and in es in the healthcare organ opersonal relationships w ly members. essional and medico-lega ith legislation, protocols a	rative role and ease awareness for its insulin administration d implementation of a DSME) plan for nd diabetic symptoms. rking environment. fection control policies ization. rith co-workers, patients al conduct at all times in





This course encompasses <u>5</u> out of <u>5</u> National Occupational Standards (NOS) of "<u>Diabetes</u> <u>Assistant</u>" Qualification Pack issued by "<u>Healthcare Sector Skill Council</u>".

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1.	Introduction to the Health care delivery system Theory Duration (hh:mm) 05:00 Practical Duration (hh:mm) 00:00 Corresponding NOS Code Bridge Module	 Differentiate between the primary, secondary and tertiary healthcare service providers. Identify various departments in the hospital. Explain the functions of various departments in the hospital. Describe the functions of endocrinology department in a hospital. 	
2.	Roles and responsibilities of diabetes assistantTheory Duration (hh:mm) 10:00Practical Duration (hh:mm) 05:00Corresponding NOS Code Bridge Module	 Describe the role and responsibilities of a diabetes assistant. Demonstrate the usage of the insulin administration kit, glucometer and related consumables. Explain the importance of patient safety and comfort. Explain the importance of compliance with the regulations and standards related to diabetes. Carry out the functions to be performed by the diabetes assistant. Discuss the importance of using correct terminologies related to diabetes. Demonstrate usage of the appropriate medical terminology during role plays depicting conversations with colleagues, patients and family. 	
3.	Structure and function of human body Theory Duration (hh:mm) 20:00 Practical Duration	 Explain the organisation of body cells, tissues, organs, organ systems, membranes and glands in the human body. Describe cell and various types of tissues. Describe different types of organ systems. Identify different types of body fluids, 	3D models and structures of various body parts and system







Sr. No.	Module	Key Learning Outcomes	Equipment Required
	(hh:mm) 05:00 Corresponding NOS Code HSS/N8708	 secretions and excretions. Identify different parts of the body using charts and models. Explain the structure and functioning of human body systems using charts and models. Design various working models depicting functioning of human body systems. 	
4.	Regulation of blood glucose in the human bodyTheory Duration (hh:mm) 20:00Practical Duration (hh:mm) 05:00Corresponding NOS Code HSS/N8708	 Describe the mechanism of blood sugar regulation and absorption in the human body. Describe the storage mechanism of glucose in the human body. Explain the anatomy and physiology of pancreas. Explain the role of pancreas towards metabolism, absorption, storage and excretion of blood glucose in the human body using charts and models. Design a working model depicting the process of metabolism, absorption, storage and excretion of blood glucose in the human body. 	Charts on structure of pancreas
5.	Identify risks related to pre-diabetic and diabetic symptoms Theory Duration (hh:mm) 30:00 Practical Duration (hh:mm) 15:00 Corresponding NOS Code HSS/N8708	 Define diabetes. Describe the epidemiology of diabetes. Classify different types of diabetes into type 1, type 2 and gestational diabetes. Explain the concept of pre-diabetes. Interview patient regarding relevant information as asked in the sample format prescribed for diabetic patients during role play. Fill the sample format organizing relevant information collected from different sources (such as patient's reports, consultation summary, previous prescriptions, etc.) in the given case study. List the risk factors related to type 1 diabetes such as disease of the pancreas, infection, genetics, etc. List the risk factors related to type 2 diabetes such as obesity, fat distribution, sedentary lifestyle etc. List the risk factors related to 	Charts on types of diabetes and risk factors of each







Sr. No.	Module	Key Learning Outcomes	Equipment Required
		 gestational diabetes such as age greater than 25, family or personal health history, excess weight etc. Discuss the impact of risk factors on diabetes management. Discuss the importance of maintaining healthy lifestyle for prevention of diabetes. 	
6.	Basic orientation on patho-physiology and diagnosis of diabetes Theory Duration (hh:mm) 20:00 Practical Duration (hh:mm) 10:00 Corresponding NOS Code HSS/N8708	 Distinguish between the pathophysiology of type 1, type 2 and gestational diabetes. Identify signs and symptoms of diabetes. List the various parameters used for diagnosing the diabetic and prediabetic conditions. List the various tests used for the diagnosis of diabetes such as blood and urine sample analysis. Explain the importance of monitoring fasting and post prandial blood sugar. Demonstrate techniques of checking parameters such as height, weight and Random Blood Sugar (RBS) using glucometer. 	Charts and demonstrative videos
7.	Basic orientation on complications of diabetes Theory Duration (hh:mm) 30:00 Practical Duration (hh:mm) 15:00 Corresponding NOS Code HSS/N8707	 List various complications related to diabetes. Explain the effects of diabetes on cardiovascular system especially diabetic cardiovascular diseases (CVD) and heart failure. Explain the effects of diabetes on ophthalmological system especially diabetic retinopathy. Explain the effects of diabetes on excretory system especially urinary tract infections (UTI) and yeast infections (thrush). Explain the effects of diabetes on the nervous system especially diabetic neuropathies, peripheral neuropathy and focal neuropathy. Explain the effects of diabetes on the musculo-skeletal system especially muscle cramps, muscle infarctions and Complex Regional Pan Syndrome (CRPS). 	Charts and posters, Foot Care Set, Eye Care Set Sand Bag, Oral Care Set, Scissors, Nail Cutter, Nail Filer, Steel Plate, Steel Glass, Steel Bowl, Spoon, Steel Jug, Bath Tub, Liquid Soap Bottle, Comb







Sr. No.	Module	Key Learning Outcomes	Equipment Required
		 Explain the effects of diabetes on the digestive system especially gastroparesis. Explain the effects of diabetes on the immune system. Explain the effects of diabetes on the renal system especially diabetic ketoacidosis and diabetic nephropathy. Explain the effects of diabetes on orodental system especially xerostomia, gingivitis and periodontitis. Explain the effects of pre-existing diabetes on the foetus during pregnancy. Explain the criteria used for detecting diabetes during pregnancy. Organize information collected to assess the condition of skin, teeth, gums and feet from diabetic patients in the sample format during role play. Identify the signs and symptoms indicating towards the complications of diabetes from a given case study. 	
8.	Implementation of treatment plan for diabetes Theory Duration (hh:mm) 30:00 Practical Duration (hh:mm) 15:00 Corresponding NOS Code HSS/N8707	 Distinguish between the pharmacological and non-pharmacological therapy used for diabetes management. Differentiate between the communication methods used with the patient based on their age, learning style and skills. Distinguish between the basic and advanced diabetes self-management plan used for treating diabetes as per its type and stage. Demonstrate different methods used for identification of positive change in behaviour of patient in line with individual's diabetes management goals in a role play. Demonstrate usage of effective Information, Education and Communication (IEC) materials for providing information on diabetes to uneducated patients. List the various types of oral hypoglycaemic agents. Discuss about proper dose timings of 	Sample videos, Information, Education and Communication (IEC) materials providing information on diabetes, sample oral hypoglycaemic agents







Sr. No.	Module	Key Learning Outcomes	Equipment Required
		 oral hypoglycaemic agents with the patient. Explain about adverse effects of incorrect dosage and incorrect timings of oral hypoglycaemic agents. List the possible side effects of oral hypoglycaemic agents. 	
9.	Use of Glucometer Theory Duration (hh:mm) 20:00 Practical Duration (hh:mm) 15:00 Corresponding NOS Code HSS/N8707	 Describe the mechanism and functioning of glucometer. Explain the importance of using a glucometer for monitoring of blood glucose levels. Demonstrate the correct use of a blood glucometer to monitor blood glucose levels. Interpret the result of the blood glucose levels. Interpret the importance and method of using different strips used in glucometer to check the blood sugar level. Demonstrate the proper and safe disposal method of consumables used with glucometer during blood glucose monitoring. 	Glucometer with strips, Syringe With Needle, Sterile 1CC or Less
10.	Insulin: uses and administration Theory Duration (hh:mm) 20:00 Practical Duration (hh:mm) 20:00 Corresponding NOS Code HSS/N8707	 Explain the importance and purpose of insulin administration. Explain the precautions to be taken during insulin administration. Distinguish between the various types of insulin available in vials or prefilled pen device. Describe various types of rapid acting insulin analogues and opaque insulin suspensions. List the various factors used for insulin purchasing such as checking the name of the insulin, dose against the patient's insulin prescription chart, expiry date, etc. Demonstrate the method of storing insulin. Explain the importance of checking the expiry date of insulin. Demonstrate the method of preparing the correct dose on insulin syringe or pen device. Select the appropriate site for 	Insulin Pens - Sample, Lancets, Urine Sample Collection Container







Sr. No.	Module	Key Learning Outcomes	Equipment Required
11.	Hyperglycemia and hypoglycemia	 subcutaneous insulin administration. Demonstrate the correct insulin injection techniques which causes minimal pain to the patient. Demonstrate the techniques of wiping sites with a surgical spirit swab. Demonstrate procedure of disposal of the waste generated from the insulin administration procedure appropriately. Demonstrate method of recording the insulin administration such as the dose, timing and site of injection on a chart. Define hypoglycaemia and hyperglycaemia. 	Charts showing differentiation in
	Theory Duration (hh:mm) 15:00 Practical Duration (hh:mm) 05:00 Corresponding NOS Code HSS/N8707	 Identify the various signs and symptoms of hypoglycaemia and hyperglycaemia. Explain about the preventive management of hypoglycaemia and hyperglycaemia. Demonstrate counselling skills while providing information on the first line of action used for hypoglycaemia and hyperglycaemia in a role play. 	symptoms of hyperglycemia and hypoglycemia
12.	Diabetes Self- Management and Education-DSME Theory Duration (hh:mm) 25:00 Practical Duration (hh:mm) 15:00 Corresponding NOS Code HSS/N8707	 Explain about nutrition, nutrients and calories. Describe the importance and components of a balanced diet. Explain the importance of following diet plan advised by dietitian. List the types of fruits and vegetables required to maintain blood glucose level of the patient. Demonstrate counselling skills while providing information on the importance of timely intake of correct dosage of medicines or insulin in a role play. Demonstrate counselling skills while providing information on the significance of maintaining record of blood sugar readings or other parameters in a role play. Explain about the basic diabetes selfmanagement practices used for improving patient safety and well-being. 	Sample Diet Chart for practice, Sample Forms and Formats, Flip chart on Diabetes Self - Management and Education







Sr. No.	Module	Key Learning Outcomes	Equipment Required
14.	Basic orientation on pre-diabetic counselling Theory Duration (hh:mm) 20:00 Practical Duration (hh:mm) 10:00 Corresponding NOS Code	 List the precautions to be taken by diabetic patients during travel. Describe the importance of regulating carbohydrate intake in diabetes management. List various benefits of restricting saturated fats and substituting them with unsaturated fats. List various merits of consuming fibrous foods. Demonstrate counselling skills while providing information on the importance of exercise and precautions to be taken before and during exercise based on patient's condition (Type I and Type II diabetes) in a role play. List the risks of smoking in relation to cardiovascular problems and other complications of diabetes. Identify signs and symptoms indicating towards pre-diabetes from a given case study. Demonstrate counselling skills while providing information on the importance of routine health check-up to patients suffering from pre-diabetic symptoms in a role play. Demonstrate counselling skills while providing information on the importance of routine health check-up to patients suffering from pre-diabetic symptoms in a role play. Demonstrate counselling skills while providing information on the importance of periodic blood sugar analysis in a role play. Explain the importance of maintaining balanced diet in pre-diabetic conditions. 	Charts and demonstrative videos on pre- diabetes
15.	HSS/N8707 Biomedical Waste Management Theory Duration (hh:mm) 05:00 Practical Duration (hh:mm) 05:00	 Categorize the different types of biomedical waste. Explain the importance of proper and safe disposal, transportation and treatment of bio-medical waste. Identify the various types of colour coded bins/containers used for disposal of biomedical waste Explain the local guidelines of biomedical waste disposal. Segregate the biomedical waste in the given situation applying the local 	Different coded color bins, chart for color coding of bins







Sr. No.	Module	Key Learning Outcomes	Equipment Required
	Corresponding NOS Code HSS/N9618	guidelines.	
16.	Safety, Emergency Medical response & First Aid Theory Duration (hh:mm) 10:00 Practical Duration (hh:mm) 10:00 Corresponding NOS Code HSS/N/9617	 Explain the basics of first aid. Identify precautions to be taken for self-safety. Identify the hospital emergency codes. Explain about disaster management techniques to deal with institutional emergencies. Demonstrate usage of hospital emergency codes and basic first aid in a mock drill depicting an institutional emergency. Define Basic Life support and its components. Demonstrate Cardio-Pulmonary Resuscitation (CPR) on manikin. 	Crash cart trolley, first aid box, CPR Nursing Manikin, Ambu Bag With Mask Adult, Torch
17.	Infection Control Policies and Procedures Theory Duration (hh:mm) 05:00 Practical Duration (hh:mm) 05:00 Corresponding NOS Code HSS/N9617	 Explain the concept of healthy living. Describe the importance of infection control and prevention. List strategies for preventing transmission of pathogenic organisms. Demonstrate the steps of spill management. Describe the nosocomial infections. Explain the importance of incident reporting. Develop techniques of self-hygiene. Explain the concept of immunization. Describe the hand-hygiene guidelines and procedures used in healthcaresettings. Demonstrate the procedures of hand hygiene. Explain the importance of using Personal Protective Equipment (PPE). List the types of PPE. Describe the process of wearing and 	Gloves Disposable, Surgical Gloves Packet, Mask Packet, Shoe Cover Packet, Hair Cap Packet, Sponge Cloth, Wet Wipes Packet







Sr. No.	Module	Key Learning Outcomes	Equipment Required
		 removing each of the PPE. Demonstrate the techniques of proper usage of PPE. Explain various vaccinations against common infectious diseases. 	
18.	Documentation and Follow-up Theory Duration (hh:mm) 20:00 Practical Duration (hh:mm) 15:00	 Define the role and responsibilities for the diabetes assistant in reporting and documentation. Describe reporting matrix and its methods. Explain various types of records to be maintained in the endocrinology department. Explain the importance of documentation of patient follow up. Describe the method of storage and retrieval of records. Perform compilation of all relevant 	Sample formats of reports and hospital documents
	Corresponding NOS Codes HSS/N8704	 information in sample formats related to patient's profile and laboratory results. Prepare a sample reflective report documenting the clinical and DSME related records as per norms and legislation. Explain the importance of reviewing the medical records for completeness and maintaining them as per the organization protocol. 	
		• Apply standard norms and legislation to complete the detailed paperwork for documenting clinical and procedure related records in a sample case study.	
		 Describe the importance of using the Hospital Information System (HIS) for maintaining longevity of the records and prompt retrieval of patient's medical charts. 	
		Demonstrate the process of recording sample patient information in the HIS.	
		Describe the importance of maintaining follow-up register as per organizational policies.	
		Demonstrate the counselling skills while providing information on the importance of regular follow ups with	







Sr. No.	Module	Key Learning Outcomes	Equipment Required
		 the physician during role play. Explain the importance of storing current and past records safely and accurate and past records safely and accurate accurate and past records safely and accurate accurat	
		 securely as per organizational policy. Determine the specified time period for retention of medical records from case study. 	
		 Describe Standard Operating Procedure (SOPs) regarding disposal of medical records. 	
		 Explain the purpose of obtaining written consent of authorized officer before sharing any patient related information to others. 	
		 Explain the importance of keeping security and confidentiality of the medical records. 	
		 Explain the importance of documentation of patient follow up. 	
		 Demonstrate the counselling skills while providing information on the importance of regular follow ups with the physician in a role play. 	
		 Demonstrate skills for scheduling, rescheduling and cancellation of fresh and follow-up appointments. Carry out assembling of the previous records of the patient from sample database given by the trainer. 	
19.	Soft Skills and Communication Theory Duration (hh:mm) 15:00 Practical Duration (hh:mm) 10:00 Corresponding NOS Code Bridge module	 Discuss the importance of effective communication with patients, relatives and colleagues without using jargons and colloquial terms. Apply effective communication methods using appropriate terminology as per policies and procedures in the role play. Describe about the attributes of a team player. Apply confidentiality and privacy practices related to patient's information Apply skills of team-work, prioritization of work and time management during daily activities. 	Case studies and demonstrative videos on team work, group dynamics







Sr. No.	Module	Key Learning Outcomes	Equipment Required	
		 Apply basic reading and writing skills using correct grammar and composition. Apply problem solving and decision making skills within scope of work. Demonstrate effective patient-centric approach in medical service. Explain the importance of working in limits of competency and authority. Identify the effects of non-compliance to the given scope of work. Explain the importance of maintaining relationship with other departments in order to seek support if required. Explain work ethics in the hospital set up. Discuss objection handling. Apply rules and policies of organization for maintaining code of conduct. Demonstrate best practices in the field. Apply basic telephone and email etiquettes during communication. Analyse the information gathered from observation, experience, reasoning, or communication to act accordingly. Define rapidly changing situations. Demonstrate adaptation with rapidly changing situations defined in sample case study. 		
	Total Duration	Unique Equipment Required:		
	(hh:mm) 500:00 Theory Duration (hh:mm) 320:00 Practical Duration (hh:mm) 180:00	Hospital Bed, Bed Mattress, Patient Side Locke Footstep, Cardiac Table, Oxygen Cylinder With Face Mask And Tubing, Foot Care Set, Eye Carwith strips, Fire Extinguisher, Weighing Machine Replacement Battery, Bedsheet, Blanket, Pillow Set, Rubber sheet/Mackintosh, Alcohol Swabs, Pens - Sample, Lancets, Urine Sample Collectio containers for stat and for 24 hrs), Syringe With 1CC Or Less, Each, Syringe With Needle, Sterike Each, Compression Stockings, Insulin Syringe, S Care Set, Insulin Vial, AED Trainer With Adult P Disposable Packet, Gloves Surgical Packet, Mas Cover Packet, Hair Cap Packet, Sponge Cloth, W Bio Degradable Plastic Bags(Red, Blue, Black A	n Connecter Key are Set, Glucometer he, Syringe Pump, w With Cover, IV , Test Tubes, Insulin ion Container (Urine h Needle, Sterile rile 2Cc or Less, , Sand Bag, Oral Pad, Gloves ask Packet, Shoe , Wet Wipes Packet,	







Sr. No.	Module	Key Learning Outcomes	Equipment Required
		 dustbins, Uro Bags, Sample Collection Bottle, Gauze Piece, Cotton Rolls, Micropore of varied size, Syringe50Cc/Ml, Hot Wate Bottle, Ice Caps, CPR Nursing Manikin, Ambu Bag With Mask Adult, Torch, Glasses, Glucose Drink Or Powder, Scissors, Nail Cutter, Nail Filer, Steel Plate, Steel Glass, Steel Bowl, Spoon, Steel Jug, Bath Tub, Liquid Soap Bottle, Comb, Sample Oral Medicine With Clearly Visible Expiry, Mfg. and Other Relevant Details, Betadine Solution Bottles, Flip chart on diabetes prevention and management, Normal Saline Bottle, Flip Charts Or Diabetes Self-Management and Education, Infusion Pump Class Room equipped with following arrangements: Interactive lectures & Discussion Brain Storming Charts & Models 	
		ActivityVideo presentation	
		Skill lab equipped with following arrangements:	
		 Unique equipment as Listed at the last Demonstration of various functions Case study Role play 	
		Visit to Diagnostic Center & Hospital	
		Field assignment	

- Grand Total Course Duration: 650:00 Hours (500 Hours for Class Room & Skill Lab Training ٠ + 150 Hours OJT/Internship/Clinical or Laboratory Training)
- 350 hours of Recommended OJT/Internship/Clinical or Laboratory Training •

(This syllabus/ curriculum has been approved by Healthcare Sector Skill Council)





Trainer Prerequisites for the Job role: "<u>Diabetes Assistant</u>" mapped to Qualification Pack: "<u>HSS/Q8703, v1.0</u>"

Sr. No	Area	Details	
1	Description	Trainer is responsible for delivering accredited training service, mapped to the curriculum detailed above, in accordance with the Qualification Pack " <u>HSS/Q8703</u> , $\underline{v1.0}$ "	
2	Personal Attributes	Aptitude for conducting training, and pre/ post work to ensure competent, employable candidates at the end of the training. Strong communication skills, interpersonal skills, ability to work as part of a team; a passion for quality and for developing others; well-organised and focused, eager to learn and keep oneself updated with the latest in the mentioned field.	
3	Minimum Educational Qualifications	 DM (Endocrinology)/MD Medicine or Medical Graduate or M.Sc Nursing or B.Sc. Dietetics or Diabetes Educator 	
4a	Domain Certification	Certified for Job Role: " <u>Diabetes Assistant</u> " mapped to QP: " <u>HSS/Q8703, v1.0</u> " with minimum score of 80%.	
4b	Platform Certification	Recommended that the Trainer is certified for the Job Role: " <u>Trainer</u> ", mapped to the Qualification Pack: " <u>MEP/Q2601</u> " with minimum score of 80%.	
5	Experience	 DM (Endocrinology)/MD Medicine with total 1 year of experience	







Assessment Criteria

For the Assessment Criteria, please refer to the QP PDF.