



Model Curriculum

QP Name: Transplant Coordinator

QP Code: HSS/Q8704

QP Version: 2.0

NSQF Level: 6

Model Curriculum Version: 1.0

Healthcare Sector Skill Council || Healthcare Sector Skill Council, 520, DLF Tower A, 5th Floor, Jasola
District Centre, New Delhi – 110025

Table of Contents

Training Parameters.....	4
Program Overview	5
Training Outcomes.....	5
Compulsory Modules.....	5
Module Details.....	9
Module 1: Introduction to healthcare delivery systems.....	9
Module 2: Soft skills and communication.....	10
Module 3: Basic computer knowledge	11
Module 4: Role and responsibilities of a transplant coordinator	12
Module 5: Anatomy and physiology of the human Body	13
Module 6: Concepts of organ donation and transplantation	14
Module 7: Tissue typing and cross matching.....	15
Module 8: Living organ/ tissue donation and transplantation	16
Module 9: Post- operative care and follow up of the recipient.....	17
Module 10: Donation after Circulatory Death (DCD) and End-of-Life Care	18
Module 11: Deceased organ/ tissue donation and transplantation.....	19
Module 12: Multiorgan retrieval	20
Module 13: Donation and transplantation in medico-legal cases	21
Module 14: Liver, pancreatic and intestinal transplantation.....	22
Module 15: Chronic Kidney Disease (CKD) and kidney transplantation	23
Module 16: Heart and lung transplantation	24
Module 17: Tissue donations, transplantation, and tissue banking.....	25
Module 18: Whole body donation.....	26
Module 19: Organ allocation and wait lists management.....	27
Module 20: Documentation and management of records	28
Module 21: Brain-stem death.....	29
Module 22: Religion and culture in organ donation	30
Module 23: Counselling techniques.....	31
Module 24: Grief counselling.....	32
Module 25: Donation and transplant organizations in India	33
Module 26: Community awareness and education.....	34
Module 27: Awareness and education at hospital level.....	35

Module 28: Maintain interpersonal relationship with colleagues and others	36
Module 29: Ethical and legal aspects in organ/ tissue donation and transplantation	37
Module 30: Infection control policies and procedures.....	39
Module 31: Bio-medical waste management	40
Module 32: DGT/VSQ/N0103: Employability Skills (90 Hours).....	41
Annexure.....	42
Trainer Requirements	42
Assessor Requirements.....	43
Assessment Strategy.....	44
References	46
Glossary.....	46
Acronyms and Abbreviations	47

Training Parameters

Sector	Healthcare
Sub-Sector	Social Work and Community Health
Occupation	Counselling
Country	India
NSQF Level	6
Aligned to NCO/ISCO/ISIC Code	NCO/2015/2635
Minimum Educational Qualification and Experience	<ul style="list-style-type: none"> • Pursuing first year of 2-year PG program (Social work or Psychiatry or Sociology or Social Science or Public Health) after completing 3 year UG degree in the relevant field or • Pursuing 4th year UG (in case of 4-year UG with honours/ honours with research) in the relevant field (Medical Graduate (MBBS/ BHMS/ BAMS/ BUMS)/Graduate (Nursing/ Allied Health Professionals)/BDS/life sciences) and continuing education or • Medical Graduate (MBBS/ BHMS/ BAMS/ BUMS/BDS) or • Graduate (Nursing/ Allied Health Professionals) with 1 year relevant experience or • Post-Graduate (Social work or Psychiatry or Sociology or Social Science or Public Health/ Masters/ PG Diploma in healthcare administration) or • Previous relevant Qualification of NSQF Level 5.5 with 1.5 year of experience or • Previous relevant Qualification of NSQF Level 5 with 3 year of experience
Pre-Requisite License or Training	Not Applicable
Minimum Job Entry Age	20 Years
Last Reviewed On	28/07/2022

Next Review Date	28/07/2025
NSQC Approval Date	28/07/2022
QP Version	2.0
Model Curriculum Creation Date	28/07/2022
Model Curriculum Valid Up to Date	28/07/2025
Model Curriculum Version	1.0
Minimum Duration of the Course	780 Hrs.
Maximum Duration of the Course	780 Hrs.

Program Overview

This section summarizes the end objectives of the program along with its duration.

Training Outcomes

At the end of the program, the learner should have acquired the listed knowledge and skills.

- Coordinate for processes related to organ/ tissue transplantation, both living and deceased.
- Demonstrate post-operative care of the recipient in living/deceased organ and tissue transplantation.
- Maintain the wait lists according to program policies and procedures, regulatory requirements, and national guidelines.
- Demonstrate counselling skills in providing grief counselling to the deceased donor families.
- Apply ethical and legal regulations related to transplantation and living/ deceased organ donation
- Create community and professional awareness programs to promote organ donation and transplantation in the respective areas.
- Follow biomedical waste disposal and infection control policies and procedures in the healthcare organization.
- Maintain interpersonal relationships with co-workers, patients, and their family members.
- Maintain professional and medico-legal conduct at all times in accordance with legislation, protocols and guidelines set up by the healthcare provider.

Compulsory Modules

The table lists the modules and their duration corresponding to the Compulsory NOS of the QP.

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	Total Duration
Bridge Modules	15:00	15:00	00:00	30:00
Module 1: Introduction to healthcare delivery systems	05:00	05:00	00:00	
Module 2: Soft skills and communication	06:00	05:00	00:00	
Module 3: Basic computer knowledge	04:00	05:00	00:00	
HSS/N8709: Coordinate operations related to living organ or tissue donation	60:00	60:00	30:00	150:00
Module 4: Role and responsibilities of a transplant coordinator	08:00	08:00	00:00	

Module 5: Anatomy and physiology of the human body	04:00	04:00	00:00	
Module 6: Concepts of organ donation and transplantation	10:00	10:00	00:00	
Module 7: Tissue typing and cross matching	10:00	08:00	00:00	
Module 8: Living organ/ tissue donation and transplantation	16:00	15:00	00:00	
Module 9: Post-operative care and follow up of the recipient	12:00	15:00	00:00	
HSS/N8710: Coordinate operations related to deceased organ or tissue donation	90:00	120:00	30:00	240:00
Module 10: Donation after Circulatory Death (DCD) and End of Life Care	08:00	08:00	00:00	
Module 11: Deceased organ/ tissue donation and transplantation	08:00	12:00	00:00	
Module 12: Multiorgan retrieval	08:00	10:00	00:00	
Module 13: Donation and transplantation in medico-legal cases	08:00	06:00	00:00	
Module 14: Liver, pancreatic, and intestinal transplantation	08:00	13:00	00:00	
Module 15: Chronic Kidney Disease (CKD) and kidney transplantation	08:00	13:00	00:00	
Module 16: Heart and lung transplantation	08:00	13:00	00:00	
Module 17: Tissue donations, transplantation, and tissue banking	08:00	13:00	00:00	
Module 18: Whole body donation	10:00	09:00	00:00	
Module 19: Organ allocation and wait lists management	10:00	14:00	00:00	

Module 20: Documentation and management of records	06:00	09:00	00:00	
HSS/N8711: Support family members in the bereavement process	30:00	30:00	30:00	90:00
Module 21: Brain-stem death	10:00	10:00	00:00	
Module 22: Religion and culture in organ donation	04:00	04:00	00:00	
Module 23: Counseling techniques	06:00	04:00	00:00	
Module 24: Grief counselling	10:00	12:00	00:00	
HSS/N8712: Create awareness related to organ or tissue donation	30:00	30:00	15:00	75:00
Module 25: Donation and transplant organizations in India	10:00	04:00	00:00	
Module 26: Community awareness and education	10:00	14:00	00:00	
Module 27: Awareness and education at hospital level	10:00	12:00	00:00	
HSS/N9615: Maintain a professional relationship with patients, colleagues and others	15:00	20:00	10:00	45:00
Module 28: Maintain interpersonal relationship with colleagues and others	15:00	20:00	00:00	
HSS/N9616: Maintain professional and medico-legal conduct	15:00	15:00	00:00	30:00
Module 29: Ethical and legal aspects in organ/ tissue donation and transplantation	15:00	10:00	00:00	

HSS/N9618: Follow infection control policies and procedures including biomedical waste disposal protocols NOS Version	15:00	10:00	05:00	30:00
Module 30: Infection control policies and procedures	09:00	04:00	00:00	
Module 31: Bio-medical waste management	06:00	06:00	00:00	
Total	270:00	300:00	120:00	690:00
Module 32: Employability Skills: DGT/VSQ/N0103: Employability Skills (90 Hours)	90:00	00:00	00:00	90:00
Total	360:00	300:00	120:00	780:00

Module Details

Module 1: Introduction to healthcare delivery systems

Bridge Module

Terminal Outcomes:

- Describe the basic structure and function of healthcare delivery system in India.

Duration: 05:00	Duration: 05:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> Discuss about the healthcare delivery system in India at primary, secondary, tertiary and quaternary level. Distinguish between private, public and non-profit healthcare delivery systems. Differentiate between various healthcare services. List different organ/ tissue transplant organizations. 	<ul style="list-style-type: none"> Prepare a report summarizing the observations about basic structure and function of healthcare delivery system in India.
Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Board eraser	
Tools, Equipment and Other Requirements	
Visit to eye banks, skin banks, kidney banks and other departments of the hospital for field assignment	

Module 2: Soft skills and communication

Bridge Module

Terminal Outcomes:

- Communicate effectively with co-workers.
- Organize and prioritize work to complete assignments on time.
- Adhere to organizational code of conduct while handling conflicts.

Duration: 06:00	Duration: 05:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss the importance of effective communication with patients, relatives, and colleagues. • Describe the attributes of a team player. • Discuss about confidentiality and privacy practices related to patient’s information. • Discuss the importance of teamwork. • Explain work ethics in the hospital set up. • Discuss about the importance of following rules and policies of organization for maintaining code of conduct and scope of work. 	<ul style="list-style-type: none"> • Demonstrate the usage of technical terms to ensure effective communication. • Apply time management skills • Demonstrate the use of reading and writing skills in written communication. • Demonstrate problem solving and decision-making skills in different situations. • Demonstrate skills of team- work and work prioritization in different team activities. • Demonstrate basic telephone and email etiquettes. • Prepare reports using the information gathered from observation, experience, reasoning, or communication.
Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster	
Tools, Equipment and Other Requirements	
Case studies and demonstrative videos on teamwork, group dynamics	

Module 3: Basic computer knowledge

Bridge Module

Terminal Outcomes:

- Demonstrate the use of computers and internet operations.
- Apply basic computer knowledge in performing various activities

Duration: 04:00	Duration: 05:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • List the fundamental hardware components that make up a computer’s hardware and the role of each of these components. • Distinguish between an operating system and an application program, and what each is used for in a computer. • Identify the principal components of a given computer system. 	<ul style="list-style-type: none"> • Demonstrate data entry, taking backups, saving, and retrieving the files, maintaining, and changing network connectivity process. • Prepare reports/documents using word processing software and spreadsheets. • Demonstrate the use of browser functions to surf on the Internet, send emails.
Classroom Aids:	
Charts, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster	
Tools, Equipment and Other Requirements	
Computer with internet facility and latest version of software	

Module 4: Role and responsibilities of a transplant coordinator

Mapped to: HSS/N8709

Terminal Outcomes:

- Describe the key roles and responsibilities of a Transplant Coordinator.

Duration: 08:00	Duration: 08:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> Explain the role and responsibilities of the transplant coordinator. Distinguish between the scope of practice of a transplant coordinator and that of other healthcare professionals. Discuss the roles of multi-disciplinary transplant team personnel. Discuss the history of transplantation in India. Explain the history of Transplant Coordinator role development. Discuss the role in the transplant team Explain challenges and limitations of the role. 	<ul style="list-style-type: none"> Create a flow chart depicting roles and responsibilities of a transplant coordinator at different sites.
Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, board eraser	
Tools, Equipment and Other Requirements	
Document and guidelines with detailed role description and limitations Field visits to organizations such as, eye banks, skin banks, blood banks, kidney banks and research trials, diagnostic laboratories etc.	

Module 5: Anatomy and physiology of the human Body

Mapped to: HSS/N8709

Terminal Outcomes:

- Describe basic structure and function of the human body.

Duration: 04:00	Duration: 04:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • List various body parts. • Explain the organisation of body cells, tissues, organs, organ systems, membranes, and glands in the human body. • Describe cells and tissues and their types. • Describe different types of organ systems. • Discuss different types of body fluids. • Discuss in detail different diseases, disorders and syndromes associated with various body systems. • Explain the structure and functioning of human body systems using charts and models. 	<ul style="list-style-type: none"> • Identify various body parts/organs including organs that can be donated using 3D models/ human organ system.
Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster.	
Tools, Equipment and Other Requirements	
3D models of human body and accessory organs, model human skeletal system, organ specimen.	

Module 6: Concepts of organ donation and transplantation

Mapped to: HSS/N8709

Terminal Outcomes:

- Describe the foundational concepts related to organ donation and transplantation.

Duration: 10:00	Duration: 10:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> Explain the concept of living donation. Explain the concept of autotransplantation, allotransplantation, and xenotransplantation etc. Differentiate between the concepts of the two types of donors i.e. live donors and deceased donors. List various types of organs, tissue, cells, limbs with their examples that can be transplanted. Explain the concept of deceased donation Discuss the Opt-in and Opt- out strategy of voluntary donation. Explain the benefits and risk associated with organ donation and transplantation. Describe the steps of transplantation. Discuss the economic aspects of organ donation and transplantation Discuss the process of organ donation and registration. Explain the myths related to organ donation. 	
Classroom Aids:	
Charts, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Board eraser	
Tools, Equipment and Other Requirements	
Concepts on organ donation, guidelines and standard documents on organ donation and transplantation	

Module 7: Tissue typing and cross matching

Mapped to: HSS/N8709

Terminal Outcomes:

- Answer queries from clients on tissue typing and cross matching and coordinate for the same.

Duration: 10:00	Duration: 08:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Explain the concept of blood/ tissue typing and cross matching, its significance and various aspects related to it. • Discuss the concept of recipient antibody screen • Discuss the indications and contraindications for carrying out tissue typing and cross matching • Explain the significance of different tests inferences and complications associated with the tests. • List the step for carrying out the tissue typing and cross matching • Explain lymphocyte cross match for various types of organ/ tissue donation and transplantation. 	<ul style="list-style-type: none"> • Demonstrate the ways to handle queries from clients on tissue typing and cross matching.
Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster	
Tools, Equipment and Other Requirements	
Standard protocols/ guideline document for tissue typing and cross matching, ABO compatibility equipments such as cover slips, glass slides etc.	

Module 8: Living organ/ tissue donation and transplantation

Mapped to: HSS/N8709

Terminal Outcomes:

- Coordinate with living donor and recipient.
- Organize lab reports and other paperwork related to transplant.
- Collaborate with other transplant team on all pre-op procedures for smooth execution of transplant.
- Address queries from donors and recipients.

Duration: 16:00	Duration: 15:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • List various diseases responsible for organ and tissue failure. • Describe the concepts of basic immunology such as rejection, and immunosuppression. • Discuss in detail the indications and contraindications for living organ transplantation • Discuss the selection / evaluation process of live donation. • Identify medical, psychosocial, social aspects, and economic findings that determine donor and/or candidate suitability. • Discuss the various risks involved in transplantation and the possible alternatives. • Discuss the benefits of live donation and transplantation. • Describe the legal and ethical issues related with living donation. List various forms and formats related to living transplantation. Discuss the role of recipient transplant coordinator in living organ/tissue donation and transplantation. • Describe best practices in organ retrieval, transportation, storage, and donation. • Explain the process of organ preservation and the quality parameters to be followed while retrieving organs. • Discuss the protocols involved in describing the donation process to a donor and recipient. • Describe the pre-transplant management of a recipient and live donor. 	<ul style="list-style-type: none"> • Demonstrate filling various forms/ formats required in living donation/ transplantation. • Demonstrate how to provide education e.g., behavior modification, social/financial issues. • Demonstrate the process of facilitating additional procedures and tests (e.g., CT scan, cholecystectomy, arteriogram) • Demonstrate the process of preparing a sample schedule of a potential candidate (e.g. desensitization, incompatible ABO). • Demonstrate the process of arranging of preoperative procedures (e.g., dialysis, x-rays, final crossmatch) • Design a sample instruction plan for a live donor and/or candidate (e.g., timing/order of surgical procedures, surgical consent, back-up status)
Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster	
Tools, Equipment and Other Requirements	
Standard documents/ guidelines on scope of work in living donation and transplantation, instructional videos, consent forms, field trip to organ donation/ patient education units, Instructional videos, sample registration process SOPs, copy of THOTA	

Module 9: Post- operative care and follow up of the recipient

Mapped to: HSS/N8709

Terminal Outcomes:

- Describe the post-operative care plan for the recipient
- Assist in caring for the organ/tissue recipient

Duration: 12:00	Duration: 15:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Classify potential short-term and long-term complications in organ transplant. • Discuss post-donation and post-transplant complications--medical, surgical, immunological, psychosocial, etc. • Describe the instructions to be given to a live donor and recipient/ family members about the immediate post-surgical care (e.g., wound care, activity limitations, pain management). • Describe the importance of long-term post-transplant follow-up for the donor and the recipient. • Describe the process of interpreting and reporting abnormalities about post-operative organ function. • Describe common symptoms and the guidelines for their management. • Identify post-donation and post-transplant complications. • Describe the process of managing short and long-term complications. 	<ul style="list-style-type: none"> • Prepare a sample follow-up plan on cases and referrals. • Demonstrate the process of guiding recipient on the long- term follow- up. • Demonstrate the method of recording vital signs data e.g., temperature, BP, weight.
Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster	
Tools, Equipment and Other Requirements	
Instructional videos, sample follow up plan format, hospital guidelines on post-op care	

Module 10: Donation after Circulatory Death (DCD) and End-of-Life Care

Mapped to: HSS/N8710

Terminal Outcomes:

- Describe Donation after Circulatory Death (DCD)
- Discuss the end-of-life care in India and its legal aspects.

Duration: 08:00	Duration: 08:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Describe the concept of DCD. • Explain the Maastricht categories for DCD. • Describe the 5 classifications of DCD donors. • Explain the ethical controversies that involve DCD. • Describe the concept of Living Wills, advance directives, and end-of-life care. • Distinguish between the legal frameworks that describe end-of-life care in India and other countries. 	
Classroom Aids:	
Charts, Video presentation, Flip Chart, White-Board/Smart Board, Marker, board eraser	
Tools, Equipment and Other Requirements	
Guidelines of Maastricht categories for DCD, guidelines on end of life care, regulatory guidelines on advanced directives and living wills	

Module 11: Deceased organ/ tissue donation and transplantation

Mapped to: HSS/N8710

Terminal Outcomes:

- Coordinate with donation and transplant team.
- Carry out necessary paperwork related to transplant.
- Inform transplant team and family members about the availability of organs.

Duration: 08:00	Duration: 12:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Describe the process for deceased donor selection and organ selection/rejection. • Discuss the process of reviewing, evaluating, and presenting donor organ information. • Identify standard transplant centre protocols. • Discuss the importance and process of obtaining consent in the transplantation domain. • Discuss the process of handing over the body of deceased donor. • Discuss different religious formalities and last rites. • List various formats and forms related to deceased donation. • Identify gaps pertaining to organ donation in the patient family. • Explain the process of communicating with the patient’s health care provider for necessary interventions in case of complications. • Describe laboratory and/or diagnostic test studies required for deceased organ transplant. • List documents required for medicolegal autopsy of donor. 	<ul style="list-style-type: none"> • Demonstrate the use of appropriate communication skills while providing necessary information to the transplant team/family members. • Prepare a sample of laboratory documents of donors and recipients.
Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster	
Tools, Equipment and Other Requirements	
Standard documents/ guidelines on scope of work in deceased donation and transplantation, instructional videos, consent forms, field trip to organ donation/ patient education units, Instructional videos, sample registration process SOPs, copy of THOTA	

Module 12: Multiorgan retrieval

Mapped to: HSS/N8710

Terminal Outcomes:

- Describe the process of multiorgan retrieval in deceased donation.
- Coordinate for multi-organ retrieval
- Complete the legal formalities including paperwork related to multiorgan retrieval

Duration: 08:00	Duration: 10:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Explain the process of evaluation of donor/ organs suitability (including non-heart beating donors). • Explain the indications and contraindications to organ donation including general and organ specific. • Discuss the principles of donor management and organ preservation related to multiorgan retrieval. • Explain the surgical anatomy of multi-organ retrieval. • List various donor transmitted diseases. • Explain the process of multi-organ retrieval from live/ deceased donor. 	<ul style="list-style-type: none"> • Evaluate donor suitability based on a sample case. • Demonstrate the process of assessment and management in multiorgan retrieval.
Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster	
Tools, Equipment and Other Requirements	
Standard documents/ guidelines on scope of work in deceased donation and transplantation, instructional videos, consent forms, field trip to organ donation/ patient education units, Instructional videos, sample registration process SOPs, copy of THOTA	

Module 13: Donation and transplantation in medico-legal cases

Mapped to: HSS/N8710

Terminal Outcomes:

- Interpret the medico-legal aspects of organ donation and transplantation.
- Assist the donor/recipient's families in understanding the medico-legal concerns.

Duration: 08:00	Duration: 06:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss various medico-legal sensitivities surrounding organ donation. • Discuss the paperwork required for organ donation to support the police, forensic medicine in medico legal cases. • Identify the needs of donor family. • Describe the role of other medical/ legal professionals in organ donation. • Discuss various steps involved in billing. • Illustrate the process of handing over body respectfully to the Next of Kin (NoK). 	<ul style="list-style-type: none"> • Demonstrate the process of supporting families during post-mortem and handing over of the body by the police. • Demonstrate appropriate verbal and non-verbal skills while discussing concerns/needs of the donor family in medico-legal cases.
Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster	
Tools, Equipment and Other Requirements	
Sample forms and formats in medico-legal cases, consent forms, sample bill forms etc	

Module 14: Liver, pancreatic and intestinal transplantation

Mapped to: HSS/N8710

Terminal Outcomes:

- Discuss the role of a transplant coordinator in liver, pancreatic and intestinal transplantation.
- Inform and provide required support to a recipient's family about the patient's condition.

Duration: 08:00	Duration: 13:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Explain liver, pancreas and intestine diseases that lead to the need of transplantation. • Discuss the indications and contraindications for liver, pancreas, and intestinal transplantation. • Explain the split liver procedure. • Explain how to evaluate recipient and donor suitability in liver, pancreas, and intestinal transplant. • Discuss various post-op complications related to liver, pancreatic and intestinal transplantation, and their respective management. • Discuss the role of a transplant coordinator in deceased donor liver, pancreatic, intestinal retrieval. • Explain the process of monitoring the recipient during post-operative care. • Discuss the criteria of evaluating the discharge and follow-up plan in liver, pancreatic and intestinal transplantation. 	<ul style="list-style-type: none"> • Demonstrate the process of guiding patient/ family about post-transplant graft and post-op care.
Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster	
Tools, Equipment and Other Requirements	
Standard documents/ guidelines on scope of work in deceased donation and transplantation, instructional videos, consent forms, field trip to organ donation/ patient education units, Instructional videos, sample registration process SOPs, copy of THOTA	

Module 15: Chronic Kidney Disease (CKD) and kidney transplantation

Mapped to: HSS/N8710

Terminal Outcomes:

- Describe various aspects related to donation and transplantation of kidney.
- Inform and provide required support to a donor's and recipient's family about the patient's condition.

Duration: 08:00	Duration: 13:00
<p>Theory – Key Learning Outcomes</p> <ul style="list-style-type: none"> • Describe in detail the anatomy and physiology of the human kidney. • Explain the different disease processes resulting in end-stage renal disease. • Distinguish between acute kidney disease and chronic kidney disease. • Differentiate between peritoneal dialysis and haemodialysis. • List the indications and contraindications for kidney transplantation. • Describe the process of evaluating donor/organ suitability. • Explain the process of selecting patient from the waiting list. • Explain the immunosuppressive strategies used in kidney transplantation. • Distinguish between living and deceased donor renal transplant. • Discuss the financial aspects of graft nephrectomy. • Explain the medical and surgical complications in renal transplant surgery and their management. 	<p>Practical – Key Learning Outcomes</p> <ul style="list-style-type: none"> • Evaluate a sample donor/organ for suitability in kidney transplant. • Create a sample long-term follow-up plan for recipients/donors. • Demonstrate the process of updating a donor/recipient's family about short- and long-term post-op complications.
<p>Classroom Aids:</p> <p>Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster</p>	
<p>Tools, Equipment and Other Requirements</p> <p>Standard documents/ guidelines on scope of work in deceased donation and transplantation, instructional videos, consent forms, field trip to organ donation/ patient education units, Instructional videos, sample registration process SOPs, copy of THOTA</p>	

Module 16: Heart and lung transplantation

Mapped to: HSS/N8710

Terminal Outcomes:

- Describe heart and lung transplantation, the possible complications and post-transplant care.
- Inform and provide required support to a recipient's family about the patient's condition.

Duration: 08:00	Duration: 13:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Describe the anatomy and physiology of the human heart and lungs. • Explain heart failure. • Describe lung diseases that may require lung transplant. • Describe heart and lung donation/transplantation. • Explain the indications and contraindications of heart and lung transplantation. • Explain the process of evaluating a patient for heart, lung, and heart valve transplantation. • Discuss various potential medical/ surgical complications, infections, or rejection and their management in heart and lung transplantation. 	<ul style="list-style-type: none"> • Prepare a chart depicting various diseases and disorders of heart and lung requiring transplantation. • Demonstrate the process of updating a recipient's family about potential surgical complications, infections, or rejection. • Evaluate a sample case for discharge and follow-up plan post-transplant in heart and lung donation. • Create a sample follow-up plan for post-transplant care.
Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster	
Tools, Equipment and Other Requirements	
Standard documents/ guidelines on scope of work in deceased donation and transplantation, instructional videos, consent forms, field trip to organ donation/ patient education units, Instructional videos, sample registration process SOPs, copy of THOTA	

Module 17: Tissue donations, transplantation, and tissue banking

Mapped to: HSS/N8710

Terminal Outcomes:

- Describe the concept of tissue (cornea, heart valves, veins/arteries, bone, connective tissue and skin) donation, transplantation, and banking.
- Assist the family of donors and recipients with paperwork.

Duration: 08:00	Duration: 13:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Explain the concept of tissue donation such as cornea, heart valves, veins/arteries, skin, etc. • List various diseases treatable by tissue transplantation. • Describe the indications and contraindications for tissue donation and transplantation. • Explain the role and responsibilities of a transplant coordinator in tissue donation. • Explain the dos and don'ts in case of tissue donation. • Describe the process and associated procedures in tissue retrieval, storage, preservation, packaging, transportation, maintenance, and discarding • Discuss the steps involved in the process of availing consent for transplant. • Describe the legal and ethical issues related with tissue donation and transplantation. • Explain the process of recipient and donor suitability. • Explain the process of maintaining registry of tissue donation. • Discuss various complications associated with tissue donation, transplantation and their management. 	<ul style="list-style-type: none"> • Demonstrate the method of assessing tissue for donation. • Select the correct consent form. • Demonstrate the process of guiding family about on giving consent.
Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster	
Tools, Equipment and Other Requirements	
Standard documents/ guidelines on scope of work in deceased donation and transplantation, instructional videos, consent forms, field trip to organ donation/ patient education units, Instructional videos, sample registration process SOPs, copy of THOTA	

Module 18: Whole body donation

Mapped to: HSS/N8710

Terminal Outcomes:

- Describe the concept of whole-body donation.

Duration: 10:00	Duration: 09:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss the concept of body donation and its need. • Summarize the basic criteria for body donation. • List the steps of whole-body donation process. • Discuss the registration process of the body donation. • Explain the concept of Next of Kin (NoK). • List the paperwork required in body donation. 	<ul style="list-style-type: none"> • Demonstrate the use of correct verbal and non-verbal language while discussing the process of body donation with Next of Kin.
Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster	
Tools, Equipment and Other Requirements	
General guidelines on body donation, form of will for donation of body after death, consent forms sample, sample registration forms	

Module 19: Organ allocation and wait lists management

Mapped to: HSS/N8710

Terminal Outcomes:

- Maintain and manage organ recipient wait lists.

Duration: 10:00	Duration: 14:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Describe the organ allocation process. • Describe the process of listing and maintaining a candidate as per standard policies. • Describe the basic concepts underlying various systems of deceased organ allocation for each organ. • Outline the principles of donor and recipient selection and deceased donor organ allocation. • List various potential problems and/or changes in eligibility criteria during the waiting period. • Explain the requirements for a transplant recipient evaluation and work up. • Describe various document requirements in live and deceased organ donation. • Explain listing and allocation requirements specific to various organs. • Explain the process of maintaining listing status and removal from the wait list. 	<ul style="list-style-type: none"> • Evaluate patients based on their attributes like health, finances etc from a sample patient waitlist.
Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster	
Tools, Equipment and Other Requirements	
Guidelines on registration process, sample wait list document	

Module 20: Documentation and management of records

Mapped to: HSS/N8710

Terminal Outcomes:

- Demonstrate technical skills of creating, updating and retrieval of the database.
- Carry out proper documentation of various process such as organ retrieval etc.

Duration: 06:00	Duration: 09:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Define the role and responsibilities of the Transplant coordinator in reporting and management of records. • Explain the purpose of obtaining written consent of authorized officer. • Describe in detail various forms provided in the THOTA. • Explain the importance of maintaining confidentiality of documents related to organ donation. 	<ul style="list-style-type: none"> • Use data management software to enter data in various forms and format according to the standard guidelines. • Prepare a sample database of patients for transplant with all relevant information. • Create a sample set of documents to record clinical and procedure related information of transplant patients. • Demonstrate the use of HIS to prepare a sample record on patient information.
Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster	
Tools, Equipment and Other Requirements	
<p>Sample formats of reports and hospital documents, various forms of consent, registration process SOPs, Copy of the Transplantation of Human Organs and Tissues Act (THOTA), various forms and certificates in the THOTA such as</p> <p>form 1 (for organ or tissue donation from identified living near related donor) form 2 (for organ or tissue donation by living spousal donor), form 3 (for organ or tissue donation by other than near relative living donor) form 4 (for certification of medical fitness of living donor) form 5 (for certification of genetic relationship of living donor with recipient) form 6 (for spousal living donor) form 7 (for organ or tissue pledging) form 8 (for declaration cum consent), form 9 (for unclaimed body in a hospital or prison) form 10 (for certification of brain stem death) form 11 (application for approval of transplantation from living donor) form 12 (application for registration of hospital to carry out organ or tissue transplantation other than cornea) form 13 (application for registration of hospital to carry out organ/tissue retrieval other than eye/cornea retrieval) form 14 (application for registration of tissue banks other than eye banks) form 15 (application for registration of eye bank, corneal transplantation centre, eye retrieval centre under transplantation of human organs act) form 16 (certificate of registration for performing organ/tissue transplantation/retrieval and/or tissue banking) form 17 (certificate of renewal of registration) form 18 (certificate by the authorisation committee of hospital) form 19 (certificate by competent authority [as defined at rule 2(c)] for Indian near relative, other than spouse, cases) form 20 (verification certificate in respect of domicile status of recipient or donor) form 21 (certificate of relationship between donor and recipient in case of foreigners)</p>	

Module 21: Brain-stem death

Mapped to: HSS/N8711

Terminal Outcomes:

- Discuss the concept of brain stem death, diagnosis, and certification.
- Carry out the process of maintenance of a potential deceased brain-dead donor.

Duration: 10:00	Duration: 10:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Describe the anatomy and physiology of the brain including various cranial nerves, their functions and brain stem reflexes. • Distinguish between brain death, brain stem death and cardiac death. • Explain the steps of confirming and certifying brain death in India and other countries. • Explain various physiological changes in brain dead patient and complications. • Discuss the guidelines of the brain death certification. • Explain the process of diagnosis of brain-dead donor. • Describe the components of medical management of potential organ donor. • Discuss the legal aspects of brain-stem death. • List records and documentation required in brain-stem death certification. 	<ul style="list-style-type: none"> • Demonstrate appropriate communication skills in informing and guiding the family of a brain-stem dead patient for organ donation. • Demonstrate the process of completing sample documentation related to brain-stem death certification.
Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster	
Tools, Equipment and Other Requirements	
Sample checklist of brain- stem death, documents on brain stem death certification, appropriate consent forms for organ donation.	

Module 22: Religion and culture in organ donation

Mapped to: HSS/N8711

Terminal Outcomes:

- Discuss the ethical, cultural, and societal responsibilities of Transplant Coordinators

Duration: 04:00	Duration: 04:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Explain the importance of religion in organ transplantation • Discuss in detail the perspectives and teaching of various cultures, religions or sects pertaining to organ donation and transplantation • Discuss various provisions given for organ transplantation in different religions and sects such as Buddhism, Christianity, Hinduism, Islam, Judaism, etc. 	<ul style="list-style-type: none"> • Prepare a sample questionnaire for donors/recipients considering the religious aspects. • Prepare a sample response sheet on queries pertaining to religious beliefs.
Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster	
Tools, Equipment and Other Requirements	
Excerpts of various religious texts advocating the practice of organ donation.	

Module 23: Counselling techniques

Mapped to: HSS/N8711

Terminal Outcomes:

- Describe various counselling techniques applicable in the field of organ donation.
- Apply the principles of counselling to carry out effective counselling sessions.

Duration: 06:00	Duration: 04:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss the significance of counselling in organ donation/transplant. • Discuss the techniques used in counselling donors/recipients. • Describe the basics of psychosocial, interpersonal, and counselling skills such as perception, building a rapport and giving news. • Explain the range of patient emotions, individual and family experiences, beliefs, behaviours, values, coping mechanisms, and adaptive capabilities. 	<ul style="list-style-type: none"> • Demonstrate relationship-building by establishing rapport, employing active listening skills, and demonstrating empathy. • Practice the process of assessing and responding to the emotional/ behavioural cues, expressed both verbally and non-verbally, including emotions affecting understanding, retention, perception, and decision-making.
Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster	
Tools, Equipment and Other Requirements	
Instructional videos on counseling techniques.	

Module 24: Grief counselling

Mapped to: HSS/N8711

Terminal Outcomes:

- Communicate with families for organ donation
- Carry out grief counselling session for the deceased donor families

Duration: 10:00	Duration: 12:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss the 5 steps of grief—denial, anger, bargaining, depression and acceptance. • Differentiate between grief therapy and grief counselling. • Explain the concept and techniques of grief counselling. • Describe the process of assessing the level of understanding of the patients. • Summarize the aspects of pre and post organ transplant counselling. • Discuss the significance of counselling of the bereaved families for cadaveric organ donation. • Recognize reactions to trauma, such as numbness, frustration, confusion, anger, anxiety, sadness, and feelings of helplessness in families of donors/recipients. • Explain the importance of forming the interpersonal/therapeutic relations. • Evaluate client expectations, perceptions, knowledge, and concerns regarding the organ donation and transplantation. • Describe the process of addressing the challenges projected by the patient families. • Describe how to liaise with donor family throughout the process of organ retrieval, and post-donation follow-up. 	<ul style="list-style-type: none"> • Use appropriate counselling methods to address client expectations, perceptions, knowledge, and concerns.
Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster	
Tools, Equipment and Other Requirements	
Instructional videos on grief counselling session, field trip to organ donation unit.	

Module 25: Donation and transplant organizations in India

Mapped to: HSS/N8712

Terminal Outcomes:

- Identify organizations (private, public, voluntary) working in the field of transplantation in India and abroad
- Establish networking with these organizations.

Duration: 10:00	Duration: 04:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss the central and organ transplantation bodies such as NOTTO and its divisions. • Explain various NGOs related and working in the domain of transplantation e.g. ORBO. • Discuss the objectives, scope, plans, importance and functioning of NOTTO • Discuss the process of sharing and allocations of organs. • Discuss in brief the status of deceased donation in India. • Identify the need and process of associating with organ/ tissue donation and transplantation. 	<ul style="list-style-type: none"> • Prepare a plan to build a network with various central, state, NGOs, voluntary transplant organizations in India and abroad.
Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster	
Tools, Equipment and Other Requirements	

Module 26: Community awareness and education

Mapped to: HSS/N8712

Terminal Outcomes:

- Create awareness on organ and tissue donation and transplantation at community level.

Duration: 10:00	Duration: 14:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Explain the duties of a transplant coordinator to the patients, profession at large and to the public. • Identify factors that affect the learning process such as socioeconomic factors, religious and cultural beliefs, language, and educational background, etc. • Describe the process of communicating the relevant information to help clients understand and adapt to conditions. • Discuss client concerns that may arise about privacy related protections. • List common values, attitudes, perceptions of clients, families, and the communities related to organ donation • Discuss various strategies to increase/promote access to organ donation services. • Identify various local organizations/NGOs working in the related domain. 	<ul style="list-style-type: none"> • Create sample Information, Education and Communication (IEC) material such as handouts, visual aids, etc for raising awareness. • Create a report on participation of awareness campaigns on organ donation and transplantation.
Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster	
Tools, Equipment and Other Requirements	
IEC material on community awareness such as charts, Flip charts, electronic presentation, pamphlets etc	

Module 27: Awareness and education at hospital level

Mapped to: HSS/N8712

Terminal Outcomes:

- Create awareness related to organ donation and transplantation amongst the hospital staff related/ not- related to organ donation.

Duration: 10:00	Duration: 12:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Determine hospital donor potential with the help of available data. • Explain the process of assessing hospital performance goals with respect to organ donation. • Describe the process of creating, implementing, and modifying specific hospital action plans related to organ donation. • List the steps of carrying out Knowledge, Attitude and Practices (KAP) analysis of the hospital staff related to organ donation. • Describe the process of planning and conducting Continuing Medical Education/ Continuing Nursing Education session • Describe the process providing regular reports of hospital donation outcomes. 	<ul style="list-style-type: none"> • Create a sample organ donation/transplant awareness plan for healthcare personnel. • Create a sample blueprint of an awareness session on organ donation and transplantation.
Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster	
Tools, Equipment and Other Requirements	
SOPs on organ donation and transplantation, copy of the Transplant Protocols, sample guideline documents of various other countries on organ donation	

Module 28: Maintain interpersonal relationship with colleagues and others

Mapped to: HSS/N9615

Terminal Outcomes:

- Discuss the importance of maintaining professional relationships with co-workers in the organization.

Duration: 15:00	Duration: 20:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Describe the importance for ensuring fulfilment of commitments. • Explain organization’s policies and procedures. • Discuss the importance of effective communication amongst colleagues • Discuss one’s role in the transplantation team. 	<ul style="list-style-type: none"> • Apply appropriate and timely communication between inter and intra departments. • Maintain confidentiality and privacy. • Maintain a positive work friendly milieu. • Demonstrate one’s role in the transplantation team. • Build and maintain the necessary collaborative relationships with co-workers at all levels that impact the donation process.
Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster	
Tools, Equipment and Other Requirements	
Sample formats of reports and hospital documents	

Module 29: Ethical and legal aspects in organ/ tissue donation and transplantation

Mapped to: HSS/N9616

Terminal Outcomes:

- Describe the relevant legislation, standards, policies, and procedures followed in the healthcare organization.
- Identify the key ethical issues related to organ donation.
- Describe the Transplantation of Human Organs and Tissues Act (THOTA)

Duration: 15:00	Duration: 10:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss the scenario of organ/ tissue donation and transplantation in India. • Explain various ethical implications with respect to organ/ tissue donation and transplantation. • Describe the ethical challenges (both continuing and emerging) related to live/ deceased donor organ allocation, access to transplantation and the ways to address them. • Discuss the Transplantation of Human Organs and Tissues Act and its amendments. • Explain the medico-legal aspects of live/ deceased donor transplant. • Explain various concepts given in the Act such as removal and preservation of organs or tissues, application for living donor transplantation, authorization committees etc. • Identify the relevant local and regional legislative issues surrounding organ donation and transplantation. • List the constituents of the authorization committee. • Describe donor pledge, its significance, and the importance of maintaining their confidentiality. • Explain Indian Transplant Registry. • Describe the rights of the patient with respect to organ donation and transplantation. • Differentiate between confidentiality, privacy, and security of health information. • Identify factors that promote client autonomy. • Explain the process of compliance with current professional credentialing requirements, at the institutional, state, regional and national level. 	<ul style="list-style-type: none"> • Demonstrate the process of addressing discrepancies between personal values and difficult candidate / recipient situations.

<ul style="list-style-type: none"> Discuss the rules and regulation of an organ donation unit. 	
Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster	
Tools, Equipment and Other Requirements	
<p>Copy of the Transplantation of Human Organs and Tissues Act (THOTA), sample of various forms and certificates in the THOTA such as</p> <p>form 1 (for organ or tissue donation from identified living near related donor)</p> <p>form 2 (for organ or tissue donation by living spousal donor),</p> <p>form 3 (for organ or tissue donation by other than near relative living donor)</p> <p>form 4 (for certification of medical fitness of living donor)</p> <p>form 5 (for certification of genetic relationship of living donor with recipient)</p> <p>form 6 (for spousal living donor)</p> <p>form 7 (for organ or tissue pledging)</p> <p>form 8 (for declaration cum consent),</p> <p>form 9 (for unclaimed body in a hospital or prison)</p> <p>form 10 (for certification of brain stem death)</p> <p>form 11 (application for approval of transplantation from living donor)</p> <p>form 12 (application for registration of hospital to carry out organ or tissue transplantation other than cornea)</p> <p>form 13 (application for registration of hospital to carry out organ/tissue retrieval other than eye/cornea retrieval)</p> <p>form 14 (application for registration of tissue banks other than eye banks)</p> <p>form 15 (application for registration of eye bank, corneal transplantation centre, eye retrieval centre under transplantation of human organs act)</p> <p>form 16 (certificate of registration for performing organ/tissue transplantation/retrieval and/or tissue banking)</p> <p>form 17(certificate of renewal of registration)</p> <p>form 18 (certificate by the authorisation committee of hospital)</p> <p>form 19 (certificate by competent authority [as defined at rule 2(c)] for Indian near relative, other than spouse, cases</p> <p>form 20 (verification certificate in respect of domicile status of recipient or donor)</p> <p>form 21 (certificate of relationship between donor and recipient in case of foreigners)</p>	

Module 30: Infection control policies and procedures

Mapped to: HSS/N9618

Terminal Outcomes:

- Develop techniques of self-hygiene.
- Apply infection control policies and procedures during daily activities.

Duration: 09:00	Duration: 04:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Explain the concept of healthy living. • Describe the importance of infection control and prevention. • List strategies for preventing transmission of pathogenic organisms. • Describe the nosocomial infections. • Explain the importance of incident reporting. • Explain the concept of immunization. • Describe the hand-hygiene guidelines and procedures used in healthcare-settings. • Explain the importance of using Personal Protective Equipment (PPE). • List the types of PPE. • Describe the process of wearing and removing each of the PPE. • Explain various vaccinations against common infectious diseases. 	<ul style="list-style-type: none"> • Demonstrate the steps of spill management. • Demonstrate the procedures of hand hygiene. • Demonstrate donning, doffing, and discarding of PPE.
Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster	
Tools, Equipment and Other Requirements	
Hypochlorite solution, chlorhexidine, alcohol swab Apron, lab coat, gloves, mask, cap, shoes, safety goggles and spectacles, towels, cotton, isopropyl alcohol Disposable cartridge and syringes Spill Kit	

Module 31: Bio-medical waste management

Mapped to: HSS/N9618

Terminal Outcomes:

- Dispose different types of biomedical waste in appropriate colour coded bins/containers.
- Apply local guidelines of biomedical waste disposal system during daily activities.

Duration: 06:00	Duration: 06:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Categorize the different types of biomedical waste. • Explain the importance and mechanism 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 importance of following local guidelines of biomedical waste disposal. 	<ul style="list-style-type: none"> • Segregate the biomedical waste applying the local guidelines. • Create a chart depicting different types of biomedical waste and various types of colour coded bins/containers used for disposal of biomedical waste. • Prepare a report on the observations from field assignment about the structure of transportation and treatment of bio-medical waste.
Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster	
Tools, Equipment and Other Requirements	
Different coded color bins, chart for color coding of bins Visit to biomedical waste treatment plant for field assignment	

Module 32: Employability Skills (90 hours)

Mapped to DGT/VSQ/N0103 : Employability Skills (90 Hours)

Mandatory Duration: 90:00

Location: On-Site

S.No.	Module Name	Key Learning Outcomes	Duration (hours)
1.	Introduction to Employability Skills	<ul style="list-style-type: none"> Outline the importance of Employability Skills for the current job market and future of work. List different learning and employability related GOI and private portals and their usage. Research and prepare a note on different industries, trends, required skills and the available opportunities. 	3
2.	Constitutional values - Citizenship	<ul style="list-style-type: none"> Explain the constitutional values, including civic rights and duties, citizenship, responsibility towards society and personal values and ethics such as honesty, integrity, caring and respecting others that are required to become a responsible citizen. Demonstrate how to practice different environmentally sustainable practices. 	1.5
3.	Becoming a Professional in the 21st Century	<ul style="list-style-type: none"> Discuss relevant 21st century skills required for employment. Highlight the importance of practicing 21st century skills like Self-Awareness, Behavior Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn etc. in personal or professional life. Create a pathway for adopting a continuous learning mindset for personal and professional development. 	5
4.	Basic English Skills	<ul style="list-style-type: none"> Show how to use basic English sentences for everyday conversation in different contexts, in person and over the telephone. Read and understand text written in basic English. Write a short note/paragraph / letter/e -mail using correct basic English. 	10
5.	Career Development & Goal Setting	<ul style="list-style-type: none"> Create a career development plan. Identify well-defined short- and long-term goals. 	4
6.	Communication Skills	<ul style="list-style-type: none"> Demonstrate how to communicate effectively using verbal and nonverbal communication etiquette. Write a brief note/paragraph on a familiar topic. Explain the importance of communication etiquette including active listening for effective communication. Role play a situation on how to work collaboratively with others in a team. 	10
7.	Diversity & Inclusion	<ul style="list-style-type: none"> Demonstrate how to behave, communicate, and conduct appropriately with all genders and PwD. Discuss the significance of escalating sexual harassment issues as per POSH act. 	2.5
8.	Financial and Legal Literacy	<ul style="list-style-type: none"> Discuss various financial institutions, products, and services. 	10

		<ul style="list-style-type: none"> • Demonstrate how to conduct offline and online financial transactions, safely and securely and check passbook/statement. • Explain the common components of salary such as Basic, PF, Allowances (HRA, TA, DA, etc.), tax deductions. • Calculate income and expenditure for budgeting • Discuss the legal rights, laws, and aids. 	
9.	Essential Digital Skills	<ul style="list-style-type: none"> • Describe the role of digital technology in day-to-day life and the workplace. • Demonstrate how to operate digital devices and use the associated applications and features, safely and securely. • Demonstrate how to connect devices securely to internet using different means. • Follow the dos and don'ts of cyber security to protect against cyber-crimes. • Discuss the significance of displaying responsible online behavior while using various social media platforms. • Create an e-mail id and follow e- mail etiquette to exchange e -mails. • Show how to create documents, spreadsheets and presentations using appropriate applications. • Utilize virtual collaboration tools to work effectively. 	20
10.	Entrepreneurship	<ul style="list-style-type: none"> • Explain the types of entrepreneurship and enterprises. • Discuss how to identify opportunities for potential business, sources of funding and associated financial and legal risks with its mitigation plan. • Describe the 4Ps of Marketing-Product, Price, Place and Promotion and apply them as per requirement. • Create a sample business plan, for the selected business opportunity. 	7
11	Customer Service	<ul style="list-style-type: none"> • Classify different types of customers. • Demonstrate how to identify customer needs and respond to them in a professional manner • Discuss various tools used to collect customer feedback. • Discuss the significance of maintaining hygiene and dressing appropriately. 	9
12	Getting Ready for Apprenticeship & Jobs	<ul style="list-style-type: none"> • Draft a professional Curriculum Vitae (CV). • Use various offline and online job search sources to find and apply for jobs. • Discuss the significance of maintaining hygiene and dressing appropriately for an interview. • Role play a mock interview. • List the steps for searching and registering for apprenticeship opportunities 	8

LIST OF TOOLS & EQUIPMENT FOR EMPLOYABILITY SKILLS

S No.	Name of the Equipment	Quantity
1.	Computer (PC) with latest configurations – and Internet connection with standard operating system and standard word processor and worksheet software (Licensed) (all software should either be latest version or one/two version below)	As required
2.	UPS	As required

3.	Scanner cum Printer	As required
4.	Computer Tables	As required
5.	Computer Chairs	As required
6.	LCD Projector	As required
7.	White Board 1200mm x 900mm	As required
<i>Note: Above Tools & Equipment not required, if Computer LAB is available in the institute.</i>		

Mandatory Duration: 120:00

Module Name: On-the-Job Training

Location: On Site

Terminal Outcomes

- Demonstrate the skill of coordinating medical, surgical, financial, psychosocial, nutrition, and pharmaceutical evaluation and on-going care needs of transplant and living donor patients.
- Participate in patient care planning and selection conference.
- Manage patient wait lists for transplant in a timely manner to facilitate access to donated organs.
- Demonstrate patient care for transplant patients and living donors pre-operatively, inpatient, discharge planning and discharge, post-discharge, as determined by the multidisciplinary transplant team.
- Demonstrate the skills of participating in the multidisciplinary transplant team.
- Communicate patient needs to transplant team members.
- Assess, plan, and advocate for the patient and families in coordination of care along with the transplant team, support personnel, community physicians, and outside agencies.
- Complete all the necessary documentation and record keeping within scope of work
- Assist in the documentation processes of other healthcare or legal professionals.
- involve the patient, family, community physicians and ancillary providers, and the multidisciplinary team to establish and update the plan of care appropriately.
- Provide coordination in all types of organ/ tissue donation.
- Assist in the collection and analysis of data as requested by transplant physicians, management team, regulatory agencies, and various research protocols.
- Develop an understanding of regulations related to transplantation and living organ donation
- Follow program policy, procedures, and guidelines to ensure compliance.
- Demonstrate how to support in critical areas of education need related to transplantation, organ procurement, deceased organ donation, and living organ donation standards and practices within the transplant program as well as throughout the hospital.
- Participate in on-going transplant and organ donation education programs.
- Participate in community and professional education to promote organ donation and Transplantation.

Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training Experience		Remarks
		Years	Specialization	Years	Specialization	
Post-graduate (recognized system of modern medicine)	Transplant Surgeons	5	Experience working in hospitals with Transplant units	2	Working in hospital Transplant Units	
MSc Nurse	Transplant Nurse	7	Experience working in hospitals with Transplant units	3	Working in hospital Transplant Units	
Master's degree (Social work or Psychiatry or Sociology or Social Science or Public Health)	Transplant Coordinators	7	Experience working in hospitals with Transplant units	3	Working in hospital Transplant Units	

Trainer Certification	
Domain Certification	Platform Certification
Certified for Job Role: "Transplant coordinator" mapped to QP: "HSS/Q8704 v2.0" with minimum score of 80%.	Recommended that the Trainer is certified for the Job Role: "Trainer (VET and Skills)", mapped to the Qualification Pack: "MEP/Q2601, v2.0" with minimum score of 80%.

Assessor Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training/Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
Post-graduate (recognized system of modern medicine)	Transplant Surgeons	5	Experience working in hospitals with Transplant units	4	Working in hospital Transplant Units	
MSc Nursing	Transplant Nurse	7	year experience working in hospitals with Transplant units	3	teaching/assessment experience	
Master's degree	Social work or Psychiatry or Sociology or Social Science or Public Health	7	year experience working in hospitals with Transplant units	3	teaching/assessment experience	

Assessor Certification	
Domain Certification	Platform Certification
Certified for Job Role: "Transplant coordinator" mapped to QP: "HSS/Q8704 v2.0" with minimum score of 80%.	Recommended that the Assessor is certified for the Job Role: "Assessor (VET and Skills)", mapped to the Qualification Pack: "MEP/Q2701, v2.0" with minimum score of 80%.

Assessment Strategy

The emphasis is on 'learning-by-doing' and practical demonstration of skills and knowledge based on the performance criteria. Accordingly, assessment criteria for each job role is set and made available in qualification pack.

The assessment papers for both theory and practical would be developed by Subject Matter Experts (SME) hired by Healthcare Sector Skill Council or with the HSSC accredited Assessment Agency as per the assessment criteria mentioned in the Qualification Pack. The assessments papers would also be checked for the various outcome based parameters such as quality, time taken, precision, tools and equipment requirement etc.

Each NOS in the Qualification Pack (QP) is assigned a relative weightage for assessment based on the criticality of the NOS. Therein each Element/Performance Criteria in the NOS is assigned marks on relative importance, criticality of function and training infrastructure.

The following tools would be used for final assessment:

1. Practical Assessment: This comprises of a creation of mock environment in the skill lab which is equipped with all equipment required for the qualification pack.

Candidate's soft skills, communication, aptitude, safety consciousness, quality consciousness etc. is ascertained by observation and marked in observation checklist. The outcome is measured against the specified dimensions and standards to gauge the level of their skill achievements.

2. Viva/Structured Interview: This tool is used to assess the conceptual understanding and the behavioral aspects with regard to the job role and the specific task at hand. It also includes questions on safety, quality, environment and equipment etc.

3. On-Job Training: OJT would be evaluated based on standard log book capturing departments worked on, key observations of learner, feedback and remarks of supervisor or mentor.

4. Written Test: Question paper consisting of 100 MCQs (Hard:40, Medium:30 and Easy: 30) with questions from each element of each NOS. The written assessment paper is comprised of following types of questions:

- i. True / False Statements
- ii. Multiple Choice Questions
- iii. Matching Type Questions.
- iv. Fill in the blanks
- v. Scenario based Questions
- vi. Identification Questions

QA Regarding Assessors:

Assessors are selected as per the "eligibility criteria" laid down by HSSC for assessing each job role. The assessors selected by Assessment Agencies are scrutinized and made to undergo training and introduction to HSSC Assessment Framework, competency based assessments, assessors guide etc. HSSC conducts "Training of Assessors" program from time to time for each job role and sensitize

assessors regarding assessment process and strategy which is outlined on following mandatory parameters:

- 1) Guidance regarding NSQF
- 2) Qualification Pack Structure
- 3) Guidance for the assessor to conduct theory, practical and viva assessments
- 4) Guidance for trainees to be given by assessor before the start of the assessments.
- 5) Guidance on assessments process, practical brief with steps of operations practical observation checklist and mark sheet
- 6) Viva guidance for uniformity and consistency across the batch.
- 7) Mock assessments
- 8) Sample question paper and practical demonstration

References

Glossary

Term	Description
Declarative Knowledge	Declarative knowledge refers to facts, concepts and principles that need to be known and/or understood in order to accomplish a task or to solve a problem.
Key Learning Outcome	Key learning outcome is the statement of what a learner needs to know, understand and be able to do in order to achieve the terminal outcomes. A set of key learning outcomes will make up the training outcomes. Training outcome is specified in terms of knowledge, understanding (theory) and skills (practical application).
OJT (M)	On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on site
OJT (R)	On-the-job training (Recommended); trainees are recommended the specified hours of training on site
Procedural Knowledge	Procedural knowledge addresses how to do something, or how to perform a task. It is the ability to work, or produce a tangible work output by applying cognitive, affective or psychomotor skills.
Training Outcome	Training outcome is a statement of what a learner will know, understand and be able to do upon the completion of the training .
Terminal Outcome	Terminal outcome is a statement of what a learner will know, understand and be able to do upon the completion of a module . A set of terminal outcomes help to achieve the training outcome.
Transplantation of Human Organs and Tissues Act	An Act to provide for the regulation of removal, storage and transplantation of human organs for therapeutic purposes and for the prevention of commercial dealings in human organs and for matters connected therewith or incidental thereto.

Acronyms and Abbreviations

Term	Description
QP	Qualification Pack
NSQF	National Skills Qualification Framework
NSQC	National Skills Qualification Committee
NOS	National Occupational Standards
HLA	Human Leukocyte Antigen
DNA	Deoxyribonucleic Acid
MLC	Medico Legal Case
THOTA	Transplantation of Human Organs and Tissues Act
NGO	Non- Government Organization
NOTTO	National Organ and Tissue Transplant Organization
CT	Computer Tomography
SOP	Standard Operating Procedures
DCD	Donation after Circulatory Death
NoK	Next of Kin
PPE	Personal Protective Equipment