MALLA REDDY VISHWAVIDYAPEETH

(Deemed to be University)

Hyderabad

School of Nursing Science and Technology

FELLOWSHIP IN

CARDIAC AND VASCULAR CARE

Curriculum 2026

Programme particulars	
Level	Post-registration fellowship (Nursing)
Duration	26 weeks (6 months) – 1,000 hours
Structure	Theory 100 hrs. Simulation laboratory 60 Hrs. Clinical practice 840 Hrs.
Eligibility	Registered B.Sc. Nursing / M.Sc. Nursing in India, or equivalent
Award	Fellowship certificate of Malla Reddy Vishwavidyapeeth

Approved Curriculum by the Board of Studies, Academic Council and Executive Council

Stage	Body	Date of Approval / Resolution no.
1	Board of Studies- School of Nursing Science and Technology	
2	Academic Council	
3	Executive Council	

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1. Preamble and Need for the Programme

Cardiovascular diseases are a major cause of illness, disability and mortality and require timely recognition, evidence-based treatment, skilled nursing care and coordinated follow-up. Nurses working in emergency departments, cardiac care units, intensive care units, catheterization laboratories, cardiac surgical units, vascular services and rehabilitation settings have an essential role in early identification of deterioration, continuous monitoring, implementation of prescribed treatment, prevention of complications and patient and family education.

The Fellowship in Cardiac and Vascular Care is a structured post-registration programme designed to strengthen nurses' knowledge, clinical judgement and practical competencies in the care of adults with cardiovascular and peripheral vascular conditions. The programme integrates theoretical instruction, simulation-based learning and supervised clinical practice. It addresses cardiovascular assessment, ECG acquisition and interpretation within nursing scope, hemodynamic monitoring, acute coronary syndromes, heart failure, dysrhythmia, cardiac emergencies, post-cardiac surgery care, vascular disorders, anticoagulation safety, cardiac rehabilitation and prevention of cardiovascular risk.

The fellowship emphasizes safe, compassionate, patient-centred and evidence-informed nursing practice. Fellows will learn to recognize clinical deterioration, initiate appropriate emergency responses, administer and monitor prescribed therapies, communicate effectively with multidisciplinary teams, maintain accurate records and support shared decision-making. Invasive procedures and advanced interventions must be undertaken only where authorized, after competency verification and under appropriate supervision.

1.1 Need

- Cardiac and vascular patients may deteriorate rapidly; nurses need structured preparation in early recognition, prioritization, escalation and emergency response.
- Post-registration training can strengthen competence in ECG monitoring, hemodynamic observation, oxygen therapy, medication safety, fluid balance and care of patients receiving cardiovascular interventions.
- Specialized cardiac and vascular services require nurses who can support patients before and after diagnostic procedures, catheter-based interventions, cardiac surgery and vascular surgery.
- Long-term outcomes depend on risk-factor modification, medication adherence, rehabilitation, symptom recognition and patient-family education.
- A competency-based fellowship provides supervised clinical exposure, simulation practice, documented skills assessment and a structured logbook while reinforcing professional accountability and scope of practice.

2.1 Vision

To prepare competent, ethical and skilled cardiac and vascular care nurses who provide safe, evidence-based and compassionate care across acute, critical, procedural, surgical, rehabilitative and community settings..

2.2 Mission

To develop specialized cardiac and vascular nursing competencies through structured theory, simulation-based training and supervised clinical practice, enabling fellows to assess cardiovascular status, recognize emergencies, monitor treatment, prevent complications, support recovery and promote cardiovascular health in collaboration with multidisciplinary teams.

2.3 Programme Objectives

After successful completion of the Fellowship in Cardiac and Vascular Care, the fellow will be able to:

1. Explain the principles and scope of cardiac and vascular care, including the anatomy and physiology of the cardiovascular system, pathophysiology of cardiovascular disorders, risk factors, preventive strategies and the role of nurses in the multidisciplinary management of cardiac and vascular conditions.

2. Perform comprehensive cardiovascular assessment by obtaining relevant health histories, assessing vital signs, monitoring cardiac rhythm, interpreting basic electrocardiogram (ECG) findings, assessing peripheral circulation and identifying clinical signs of cardiovascular deterioration.
3. Demonstrate competency in the nursing management of cardiac emergencies by recognizing life-threatening conditions, initiating basic life support (BLS), assisting in advanced cardiac life support (ACLS) interventions within the scope of training and institutional protocols, and providing timely care during cardiac arrest and other cardiovascular emergencies.
4. Assist in the management of patients undergoing cardiac and vascular procedures, including coronary angiography, percutaneous coronary intervention (PCI), cardiac catheterization, pacemaker implantation, cardiac surgery and vascular interventions, with appropriate pre-procedure preparation, intra-procedure assistance and post-procedure monitoring.
5. Demonstrate skills in the care of critically ill cardiovascular patients by monitoring hemodynamic parameters, interpreting relevant diagnostic findings, managing cardiac monitoring systems, assisting with ventilatory and circulatory support, and providing nursing care to patients in cardiac intensive care units (CICUs), coronary care units (CCUs) and postoperative cardiac care units.
6. Provide specialized nursing care for patients with vascular disorders by assessing peripheral pulses, perfusion, oedema and neurovascular status; recognizing complications such as deep vein thrombosis, pulmonary embolism, acute limb ischemia and vascular insufficiency; and implementing appropriate preventive, therapeutic and rehabilitative nursing interventions.
7. Administer and monitor cardiovascular medications safely, including antiplatelet agents, anticoagulants, thrombolytic agents, antihypertensives, antiarrhythmics, vasopressors and inotropic agents, while monitoring therapeutic responses, adverse effects and potential complications in accordance with prescriptions and institutional protocols.
8. Maintain accurate clinical documentation and participate in quality improvement activities by recording cardiovascular assessments, monitoring parameters, nursing interventions, medication administration and patient outcomes, while applying evidence-based guidelines, clinical audit, infection control practices and institutional standards to improve the quality and safety of cardiac and vascular nursing care.

3. Programme at a Glance

Item	Details
Name of the programme	Fellowship in Cardiac and Vascular Care
Offered by	School of Nursing Science and Technology, Malla Reddy Vishwavidyapeeth (Deemed to be University)
Duration	26 weeks (6 months), full time
Total hours	Total 1,000 hrs.: theory 100, simulation laboratory 60, clinical practice 840
Credits	33 (at 30 notional hours per credit; 1,000 h ÷ 30 = 33.3, rounded down)
Eligibility	Registered B.Sc. Nursing / M.Sc. Nursing in India, or equivalent
Mode	Contact classes, simulation, supervised clinical postings in a teaching hospital, logbook
Assessment	MCQ 25 + practical skills (three case scenarios) 60 + logbook 15 = 100 marks; minimum 50% in each component and 50% aggregate
Award	Fellowship certificate by Malla Reddy Vishwavidyapeeth (Deemed to be University)
Medium of instruction	English

4. Eligibility, Selection and Governance

4.1 Eligibility

- Registered B.Sc. Nursing or M.Sc. Nursing in India, or equivalent qualification.

- Current registration with a State Nursing Council (certificate to be produced at admission).
- Medical fitness certificate and immunization record (hepatitis B at minimum).

4.2 Selection and commencement

The fellowship is established to uphold transparency, fairness and meritocracy in the selection process for the MRV Fellowship Programme. Selection is made by the Fellowship Committee based on academic records, a short interview and document verification. A batch commences once the committee has approved the list of fellows and allotted a guide to each fellow.

4.3 Fellowship Committee

Sl. No.	Role / position	Description / designation
1	Chairperson	The Dean, SNST
2	Subject expert	Dean MRCON, Professor or Associate Professor of SNST
3	Guide / co-guide	Professor, Associate Professor or Assistant Professor from SNST
4	Convener	The Fellowship Coordinator of MRV
5	Ex officio members	The Registrar and the Controller of Examinations, MRV

Functions of the committee: approval of the curriculum and of any additional output or deliverable (written approval is needed beforehand); selection of fellows; allotment of guides; monitoring of attendance, logbooks and clinical postings; conduct of the final assessment; handling of grievances; recommendation of award of the certificate.

4.4 Guides

- Guide / co-guide: Professor, Associate Professor or Assistant Professor from SNST with a postgraduate qualification in nursing and experience in Fellowship in Cardiac and Vascular Care
- Clinical preceptors: nurses with at least two years of Fellowship in Cardiac and Vascular Care experience and a valid ACLS/BLS provider certificate.
- Guide-to-fellow ratio not more than 1:1.

5. Programme Outcomes

5.1 Programme outcomes (POs)

At the end of the fellowship the fellow demonstrates the following programme outcomes.

PO	Domain	Programme outcome
PO1	Knowledge	Explains the principles of cardiovascular anatomy, physiology, pathophysiology, cardiac and vascular disorders, diagnostic investigations, therapeutic interventions and evidence-based practices relevant to cardiac and vascular nursing care.
PO2	Assessment and triage	Performs comprehensive cardiovascular assessment, interprets basic ECG findings, monitors vital signs and hemodynamic parameters, assesses peripheral circulation, and recognizes early signs of cardiovascular deterioration and complications.
PO3	Emergency interventions	Provides safe, timely and evidence-based nursing care to patients experiencing acute coronary syndromes, myocardial infarction, cardiac arrhythmia, cardiac arrest, acute heart failure and other cardiovascular emergencies, following established protocols and the authorized scope of practice.
PO4	Communication and education	Communicates effectively with patients, families and multidisciplinary healthcare professionals; maintains accurate clinical records; provides health education; and promotes patient and family participation in cardiovascular treatment, rehabilitation and long-term disease management.

PO	Domain	Programme outcome
PO5	Safety, infection control and ethics	Apply patient safety principles, infection prevention measures, medication safety, informed consent, confidentiality and ethical standards in cardiac and vascular care, including the prevention, early identification and management of procedure-related complications.
PO6	Leadership and evidence	Coordinates nursing care in cardiac wards, coronary care units, cardiac intensive care units and vascular care settings; collaborates with multidisciplinary teams; applies evidence-based guidelines; and participates in clinical audits, quality improvement initiatives and cardiovascular health promotion programmes.

6. Curriculum Framework

6.1 Distribution of hours

Unit	Title	Theory (h)	Simulation lab (h)
1	Introduction of Cardiac Conditions	5	5
2	Introduction of Vascular Conditions	5	5
3	Cardiac and Vascular medical conditions	15	5
4	Cardiac surgical conditions	10	10
5	Management of Cardiac and Vascular Emergency Conditions	15	10
6	Intensive Cardiothoracic Nursing	30	10
7	Pain Management	15	5
8	Infection control strategies	5	5
	Total	**100**	60

Component	Hours	Share
Theory (8 units)	100	10%
Simulation laboratory	60	6%
Clinical practice (postings)	840	84%
Total	**1,000**	**100%**

Average weekly load over 26 weeks: about 4 hours of theory, 2 hours of simulation and 32 hours of clinical practice (about 38 hours a week).

6.2 Schedule of the 26 weeks

Weeks	Activity
1–2	Orientation, Units I and II & III, equipment familiarization.
3–20	Clinical postings as in Section 8, with theory (Units III–X) and simulation sessions scheduled against the posting
21–25	Remaining postings, logbook completion, revision and case-scenario practice
26	Final assessment and exit examination

6.3 Teaching–learning methods

- Interactive lectures, educational videos and case-based learning on cardiovascular anatomy and physiology, cardiac and vascular disorders, cardiovascular assessment, diagnostic investigations, evidence-based nursing interventions and current guidelines for cardiac and vascular care.
- Simulation laboratory: ECG machines and cardiac monitors, defibrillators, resuscitation mannequins, infusion pumps, hemodynamic monitoring equipment, vascular access models, pacemaker simulators and other equipment for practicing essential cardiac and vascular nursing procedures.
- Bedside teaching and supervised clinical practice in cardiac wards, coronary care units (CCUs), cardiac intensive care units (CICUs), cardiovascular surgery units, catheterization laboratories, cardiac rehabilitation units and vascular surgery departments.

- Practical training in ECG recording and basic interpretation, cardiac rhythm monitoring, hemodynamic assessment, medication administration, oxygen therapy, fluid balance monitoring, vascular access care, pre- and post-procedure nursing care, and early identification of clinical deterioration.
- Training in cardiopulmonary resuscitation (CPR), basic life support (BLS), and advanced cardiac life support (ACLS) principles, as appropriate to the fellow's prior certification, level of training and institutional protocols, including the use of defibrillators and emergency response systems.
- Procedure-based learning: Observation and supervised participation in the nursing care of patients undergoing coronary angiography, percutaneous coronary intervention (PCI), pacemaker implantation, cardiac surgery, vascular interventions and other specialized cardiovascular procedures.
- Evidence-based learning through journal clubs, clinical audits, review of current cardiovascular guidelines, nursing research discussions and quality improvement projects focused on patient safety, infection prevention and improved outcomes in cardiac and vascular care.

Detailed Syllabus: Fellowship in Cardiac and Vascular Care

Theory 100 hours · Simulation laboratory 60 hours · Clinical practice 840 hours

For every unit the syllabus gives the learning objectives, content, teaching–learning activities, assessment methods and course outcomes (CO).

Unit I: Introduction to Cardiac and Vascular Care

Theory: 5 hours

Learning objectives

After completion of this unit, the fellow will be able to:

1. Define cardiac and vascular conditions and explain their significance in healthcare
2. Describe the historical development and scope of cardiac and vascular nursing.
3. Explain the anatomy and physiology of the cardiovascular system.
4. Describe the purpose and principles of comprehensive cardiovascular assessment.
5. Explain the indications for cardiac monitoring and basic cardiovascular diagnostic procedures.

Content

A. Introduction to Cardiac and Vascular Conditions
   - Definition, concepts and classification of cardiac and vascular conditions.
   - Historical development and advancements in cardiac and vascular care.
   - Overview of the anatomy and physiology of the cardiovascular system.
   - Common cardiac and vascular disorders.
   - Risk factors, prevention and early identification of cardiovascular diseases.
   - Scope, roles and responsibilities of specialized cardiac and vascular nurses.

B. Cardiovascular Assessment and Monitoring

- Purpose and principles of cardiovascular assessment.
- Cardiovascular history taking and physical examination.
- Assessment of vital signs, peripheral pulses, capillary refill and peripheral perfusion.
- Introduction to cardiac monitoring and electrocardiography (ECG).
- Types, indications and basic principles of cardiac monitors.
- Introduction to cardiovascular diagnostic investigations.
- Nursing responsibilities in cardiovascular assessment and monitoring.

Teaching–learning activities

- Interactive lectures and group discussions.
- Guided reading on cardiovascular anatomy and physiology.
- Demonstration of cardiac monitors and ECG equipment.
- Hands-on practice in cardiovascular assessment.
- Video-based learning on cardiac and vascular conditions.
- Case-based discussions.

Assessment methods

- Multiple-choice questions (MCQs).
- Short-answer questions.
- Demonstration of cardiovascular assessment.
- Practical assessment of cardiac monitoring skills.
- Viva voce.

Course outcomes (CO)

CO	Course outcome: The fellow will be able to
CO1	Explain the concepts, scope and significance of cardiac and vascular care.
CO2	Describe the principles of cardiovascular assessment and demonstrate basic cardiac monitoring skills.

Unit II: Introduction to Vascular Conditions and Comprehensive Assessment

Theory: 20 hours Simulation laboratory: 2 hrs

Learning objectives

- Explain the importance of early identification and assessment of vascular conditions.
- Describe the principles of comprehensive vascular assessment.
- Identify the clinical manifestations of arterial, venous and lymphatic disorders.
- Explain the diagnostic investigations used in vascular assessment.
- Discuss emergency interventions, postoperative nursing care and surgical support for patients with vascular conditions.

Content

A. Introduction to Vascular Conditions

- Definition, classification and significance of vascular diseases.
- Anatomy and physiology of arterial, venous and lymphatic circulation.
- Risk factors and prevention of vascular disorders.
- Clinical manifestations of impaired circulation.
- Recognition of acute and chronic vascular conditions.

B. Comprehensive Vascular Assessment

- Vascular history taking and physical examination.
- Assessment of peripheral pulses, skin colour, temperature and sensation.
- Capillary refill and peripheral perfusion assessment.
- Recognition of acute limb ischemia and deep vein thrombosis.
- Diagnostic investigations: Doppler ultrasonography, CT angiography, MR angiography and conventional angiography.
- Interpretation of relevant vascular assessment findings.

C. Emergency and Perioperative Nursing Care

- Principles of emergency assessment and initial stabilization.
- Recognition and escalation of vascular emergencies.
- Preoperative preparation for vascular interventions.
- Postoperative monitoring and assessment of circulation.
- Prevention of bleeding, infection and thromboembolic complications.
- Patient education and rehabilitation.

Teaching–learning activities

- Interactive lectures and demonstrations.
- Case study analysis.
- Video-based clinical scenarios.
- Case presentations.
- Role-play on vascular assessment.
- Demonstration of peripheral pulse assessment.

Assessment methods

- MCQs and short-answer questions.
- Case presentation.
- Practical demonstration checklist.
- Viva voce.
- Case-based assessment.

Course outcomes (CO)

CO	Course outcome: The fellow will be able to
CO1	Describe common vascular conditions and their clinical manifestations.
CO2	Perform comprehensive vascular assessment and identify findings requiring urgent intervention.
CO3	Explain the principles of emergency, preoperative and postoperative nursing care for vascular patients.

Unit III: Cardiac and Vascular Medical Conditions

Theory: 25 hours Simulation laboratory: 56 hrs

Learning objectives

- Describe the etiology, pathophysiology and clinical manifestations of common cardiac and vascular disorders.
- Explain the diagnostic investigations used to evaluate cardiovascular diseases.
- Discuss the medical and nursing management of cardiac and vascular conditions.
- Identify complications and warning signs requiring immediate intervention.
- Apply evidence-based nursing principles in the care of patients with cardiovascular disorders.

Content

A. Cardiac Medical Conditions

- Coronary artery disease (CAD).
- Acute myocardial infarction (MI).
- Angina pectoris and chest pain.
- Cardiomyopathy.
- Cardiac arrhythmias and conduction disorders.
- Heart failure and pulmonary oedema.
- Valvular heart diseases.
- Congenital heart diseases.
- Infective endocarditis.
- Hypertensive emergencies.

B. Vascular Medical Conditions

- Peripheral artery disease (PAD).
- Carotid artery disease.
- Aortic aneurysms and aortic diseases.
- Renal artery disease.
- Deep vein thrombosis (DVT).
- Chronic venous insufficiency and varicose veins.
- Vascular infections.
- Vasculitis.
- Lymphatic disorders and lymphoedema.

C. Diagnostic Evaluation

- Cardiovascular history taking and physical examination.
- ECG interpretation and cardiac biomarker assessment.
- Echocardiography and cardiac stress testing.
- Coronary angiography.
- Doppler studies and vascular imaging.
- Assessment of hemodynamic status and tissue perfusion.
- Interpretation of relevant diagnostic findings.

D. Medical and Nursing Management

- Pharmacological management of cardiac and vascular conditions.
- Administration and monitoring cardiovascular medications.
- Monitoring adverse drug reactions.
- Assessment and management of pain, dyspnea and oedema.
- Prevention of complications and clinical deterioration.
- Patient education, lifestyle modification and secondary prevention.

Teaching–learning activities

- Interactive lectures and group discussions.
- Video-based clinical case scenarios.
- Case-based learning.
- ECG interpretation sessions.
- Clinical demonstrations.
- Supervised bedside teaching

Assessment methods

- MCQs.
- Short-answer questions.
- Viva voce.
- Case-based written assessment.
- ECG interpretation assessment.
- Nursing care plan evaluation.

Course outcomes (CO)

CO	Course outcome: The fellow will be able to
CO1	Explain the a etiology, pathophysiology and clinical manifestations of common cardiac and vascular disorders.
CO2	Describe appropriate diagnostic investigations and interpret relevant cardiovascular findings.
CO3	Discuss medical and nursing management and identify complications of cardiovascular diseases.

Unit IV: Cardiac and Vascular Surgical Conditions

Theory: 10 hours

Learning objectives

- Describe the indications and principles of common cardiac and vascular surgical procedures.
- Explain preoperative assessment and preparation of cardiovascular patients.
- Discuss postoperative nursing management following cardiac and vascular surgery.
- Identify complications associated with cardiovascular surgical procedures.
- Demonstrate appropriate nursing care for patients undergoing cardiovascular interventions.

Content

A. Cardiac Surgical Procedures

- Coronary artery bypass grafting (CABG).
- On-pump and off-pump coronary artery bypass surgery.
- Minimally invasive cardiac surgery (MICS).
- Heart valve repair and replacement.
- Open-heart surgery.
- Aortic surgery and repair of aortic dissection.
- Heart transplantation.
- Permanent pacemaker implantation.

- Implantable cardioverter-defibrillator (ICD) insertion.
- Catheter-based cardiac interventions.
- Robotic-assisted cardiac surgery.

B. Vascular Surgical Procedures

- Peripheral arterial bypass surgery.
- Carotid endarterectomy and carotid artery stenting.
- Open and endovascular aortic aneurysm repair.
- Embolectomy and thrombectomy.
- Angioplasty and vascular stenting.
- Surgical management of varicose veins.
- Vascular access procedures and related complications.

C. Perioperative Nursing Management

- Preoperative cardiovascular assessment.
- Patient preparation and verification of informed consent.
- Monitoring during and after cardiovascular procedures.
- Assessment of haemodynamic status and peripheral circulation.
- Management of surgical wounds, drains and vascular access sites.
- Recognition of bleeding, infection, arrhythmias and graft-related complications.
- Postoperative pain management and early mobilization.
- Patient education and rehabilitation.

Teaching–learning activities

- Interactive lectures.
- Demonstration of cardiac and vascular surgical equipment.
- Video-assisted learning.
- Case discussions on perioperative nursing care.
- Simulation of postoperative monitoring.
- Supervised clinical observation.

Assessment methods

- Skills demonstration checklist.
- MCQs.
- Case-based discussion.
- Viva voce.
- Perioperative nursing care plan.

Course outcomes (CO)

CO	Course outcome: The fellow will be able to
CO1	Explain the indications and principles of common cardiac and vascular surgical procedures.
CO2	Describe preoperative and postoperative nursing management.
CO3	Identify postoperative complications and explain appropriate nursing interventions.

Unit V: Management of Cardiac and Vascular Emergencies

Theory: 25 hours

Learning objectives

- Recognize life-threatening cardiac and vascular emergencies.
- Perform systematic assessment and prioritization of patients requiring emergency care.
- Explain the principles of cardiopulmonary resuscitation (CPR) and automated external defibrillator (AED) use.
- Discuss emergency pharmacological and non-pharmacological interventions.

- Demonstrate appropriate initial nursing management of cardiac arrest, acute coronary syndromes and vascular emergencies

Content

A. Emergency Assessment and Initial Stabilization

- Primary and secondary assessment of critically ill patients.
- Airway, breathing and circulation assessment.
- Recognition of shock, respiratory distress and hemodynamic instability.
- Oxygen therapy and emergency monitoring.
- Early warning signs and escalation of care.
- Initial stabilization and emergency documentation.

B. Cardiac Emergencies

- Acute coronary syndrome and acute myocardial infarction.
- Cardiac arrest and life-threatening arrhythmia.
- Acute heart failure and pulmonary oedema.
- Cardiogenic shock.
- Hypertensive emergencies.
- Aortic dissection and its complications.
- Basic life support (BLS), CPR and AED use.
- Advanced cardiovascular life support (ACLS) principles.
- Emergency cardiac medications and nursing responsibilities.

C. Vascular Emergencies and Trauma

- Acute limb ischemia.
- Ruptured aortic aneurysm.
- Major vascular bleeding and vascular trauma.
- Deep vein thrombosis and pulmonary embolism.
- Thoracic trauma and associated cardiovascular complications.
- Hemorrhage control and emergency vascular support.
- Emergency imaging and preparation for surgical intervention.
- Anticoagulation and thrombolytic therapy: indications, contraindications and nursing monitoring.

Teaching–learning activities

- Cardiac emergency simulations.
- Trauma management simulations.
- CPR and AED practice.
- Emergency response drills.
- Demonstration of emergency equipment.
- Case-based discussions and group exercises.

Assessment methods

- Objective Structured Clinical Examination (OSCE).
- Written examination.
- Emergency response skills checklist.
- Simulation-based competency assessment.
- Group case presentation.
- Practical demonstration.

Course outcomes (CO)

CO	Course outcome: The fellow will be able to
CO1	Recognize and prioritize cardiac and vascular emergencies.
CO2	Demonstrate CPR, AED use and appropriate initial emergency nursing interventions

CO3	Explain the emergency management of acute coronary syndromes, vascular emergencies and cardiovascular trauma.

Unit VI: Intensive Cardiothoracic Nursing and Critical Cardiovascular Care

Theory: 30 hours

Learning objectives

After completion of this unit, the fellow will be able to:

1. Conduct comprehensive assessments of patients with critical cardiac and vascular conditions.
2. Interpret cardiovascular monitoring findings and relevant diagnostic investigations.
3. Explain the principles of hemodynamic monitoring and advanced cardiovascular support.
4. Provide evidence-based nursing care to patients undergoing complex cardiac and vascular interventions.
5. Identify and manage complications associated with critical cardiovascular illness.
6. Demonstrate competency in intensive cardiothoracic nursing within the prescribed scope of practice.

Content

A. Principles of Intensive Cardiothoracic Nursing

- Principles of nursing care for patients with cardiothoracic disorders.
- Cardiovascular and respiratory assessment.
- Assessment of heart sounds, peripheral perfusion and hemodynamic status.
- ECG monitoring, Holter monitoring and stress testing.
- Cardiac biomarkers, echocardiography and coronary angiography.
- Invasive and non-invasive hemodynamic monitoring.
- Arterial lines and central venous pressure monitoring.
- Ventilatory support and oxygenation in critically ill cardiac patients.

B. Critical Cardiovascular Conditions

- Acute myocardial infarction and acute coronary syndromes.
- Severe arrhythmias and conduction disturbances.
- Cardiogenic shock.
- Acute and chronic heart failure.
- Cardiomyopathy and valvular disorders.
- Hypertensive emergencies.
- Aortic aneurysms and aortic dissection.
- Deep vein thrombosis and pulmonary embolism.
- Infective endocarditis.
- Complications following cardiac surgery and vascular interventions.

C. Advanced Cardiovascular Interventions

- Thrombolytic therapy and anticoagulation monitoring.
- Percutaneous coronary intervention (PCI) and angioplasty.
- Temporary and permanent pacemaker management.
- Cardioversion and defibrillation.
- Intra-aortic balloon pump (IABP) monitoring and care.
- Radiofrequency catheter ablation.
- Coronary arteries bypass grafting and minimally invasive cardiac surgery.
- Valvular surgery and postoperative management.
- Heart transplantation and post-transplant nursing care.
- Extracorporeal membrane oxygenation (ECMO): principles and nursing responsibilities.
- Cardiopulmonary resuscitation and BLS/ACLS protocols.
- Blood transfusion and monitoring for transfusion reactions.

D. Critical Care Nursing Management

- Fluid and electrolyte balance.
- Safe administration of high-alert cardiovascular medications.
- Prevention of pressure injuries and device-associated complications.
- Management of chest drains, surgical wounds and vascular access devices.
- Infection prevention in cardiac intensive care units.
- Early mobilization and psychological support.
- Family education and multidisciplinary collaboration.
- Documentation and end-of-life care where appropriate.

Teaching–learning activities

- ECG interpretation sessions.
- Hemodynamic monitoring demonstrations.
- Simulation-based critical care scenarios.
- Case-based learning and clinical discussions.
- Demonstration of cardiovascular devices.
- Supervised clinical practice in cardiac intensive care units and cardiac catheterization laboratories.

Assessment methods

- Practical demonstrations.
- ECG and hemodynamic interpretation.
- ACLS-related competency assessment, as applicable.
- Clinical case evaluation.
- OSCE.
- Critical care nursing care plan.
- Clinical performance assessment.

CO	Course outcome: The fellow will be able to
CO1	Perform comprehensive assessments of critically ill cardiac and vascular patients.
CO2	Interpret ECG findings and cardiovascular monitoring parameters.
CO3	Explain the principles of advanced cardiovascular interventions and critical care management.

Unit VII: Comprehensive Nursing Care, Pain Management and Rehabilitation

Theory: 15 hours

Learning objectives

After completion of this unit, the fellow will be able to:

1. Provide holistic nursing care to patients with cardiac and vascular disorders.
2. Assess and manage acute and chronic pain using appropriate interventions.
3. Administer cardiovascular medications and fluid therapy safely.
4. Implement wound care and measures to prevent postoperative complications.
5. Plan patient education, lifestyle modification and cardiovascular rehabilitation.
6. Support patients and families in recovery and long-term disease management.

Content

A. Comprehensive Cardiovascular Nursing Care

- Assessment of physical, psychological and social needs.
- Nursing care planning and implementation.
- Pain assessment using validated pain scales.
- Pharmacological and non-pharmacological pain management.
- Safe administration of cardiac and vascular medications.
- Fluid and electrolyte management.
- Calculation and administration of prescribed fluids.
- Nutritional assessment and dietary counselling.

- Wound care and postoperative monitoring.
- Prevention of infection, bleeding and thromboembolic complications.

B. Rehabilitation and Continuity of Care

- Early mobilization and graded physical activity.
- Cardiac and vascular rehabilitation principles.
- Lifestyle modification and cardiovascular risk-factor management.
- Medication adherence and self-monitoring.
- Patient and family education.
- Psychological support and coping strategies.
- Discharge planning and follow-up care.
- Prevention of recurrent cardiovascular events.

Teaching–learning activities

- Pain assessment and management practice.
- Fluid calculation exercises.
- Wound care demonstrations.
- Patient counselling role-play.
- Group activities on cardiovascular rehabilitation.
- Preparation of individualized nursing care plans.

Assessment methods

- Fluid therapy assignment.
- Wound care skills checklist.
- Patient education demonstration.
- Nursing care plan evaluation.
- Case presentation.
- Practical assessment.

CO	Course outcome: The fellow will be able to
CO1	Provide comprehensive and individualized nursing care to patients with cardiac and vascular conditions.
CO2	Apply appropriate pain management, fluid therapy and wound care principles.
CO3	Plan patient education, cardiovascular rehabilitation and continuity of care.

Unit VIII: Infection Prevention and Control in Cardiac and Vascular Care

Theory: 5 hours

Learning objectives

After completion of this unit, the fellow will be able to:

1. Explain the principles of infection prevention and control in cardiovascular care settings.
2. Demonstrate appropriate hand hygiene and aseptic techniques.
3. Identify infection risks associated with invasive devices and cardiovascular procedures.
4. Describe strategies for preventing healthcare-associated infections.
5. Explain the nurse's role in antimicrobial stewardship and patient safety.

Content

A. Principles of Infection Prevention and Control

- Standard and transmission-based precautions.
- Hand hygiene and personal protective equipment.
- Aseptic technique during invasive procedures.
- Sterilization and disinfection of cardiovascular equipment.
- Environmental cleaning and safe waste management.

- Antimicrobial stewardship.
- Safe specimen collection and infection surveillance.

B. Infection Prevention in Cardiac and Vascular Care

- Prevention of central line-associated bloodstream infections.
- Prevention of ventilator-associated pneumonia.
- Prevention of surgical site infections following cardiac and vascular surgery.
- Infection prevention in cardiac catheterization laboratories.
- Care of pacemakers and other implanted-device sites.
- Prevention of infections associated with vascular access devices.
- Early identification, documentation and reporting of suspected infections.

Teaching–learning activities

- Interactive lectures and group discussions.
- Hand hygiene demonstrations.
- Aseptic technique practice.
- Infection prevention simulation exercises.
- Case-based discussions.
- Practical infection control audits.

Assessment methods

- MCQs.
- OSCE.
- Infection prevention skills checklist.
- Case-based assessment.
- Practical demonstration.

CO	Course outcome: The fellow will be able to
CO1	Explain infection prevention and control principles relevant to cardiac and vascular care.
CO2	Demonstrate appropriate hand hygiene, aseptic techniques and device-care practices.
CO3	Identify infection risks and implement measures to prevent healthcare-associated infections.

8. Clinical Practice: Postings (840 hours)

Clinical area	Weeks	Hours
Emergency Department and Cardiac Care Unit	4	140
Cardiology Ward and Coronary Care Unit (CCU)	4	140
Cardiothoracic and Vascular Surgery Unit	3	100
Cardiac Catheterization Laboratory and Interventional Cardiology	3	100
Cardiac Intensive Care Unit (CICU)	3	100
Vascular Surgery and Peripheral Vascular Care Unit	3	100
Cardiac Rehabilitation and Preventive Cardiology Services	3	100
Cardiovascular Diagnostics and Non-invasive Laboratory	3	60
Total	**26**	**840**

Postings shall be scheduled according to the clinical roster, availability of specialized cardiovascular services and institutional permissions. Clinical practice should begin with emergency cardiovascular assessment and stabilization, followed by supervised rotations in cardiology, coronary care, cardiothoracic and vascular surgery, interventional cardiology, cardiac intensive care, rehabilitation and cardiovascular diagnostics. Fellows shall participate in clinical activities under the supervision of qualified healthcare professionals and within their authorized scope of practice. Where direct clinical exposure is unavailable, supervised simulation and approved case-based learning may be used.

8.1 Expected learning in each posting

Posting	Focus
Emergency Department and Cardiac Care Unit	Initial assessment and triage of patients with acute cardiovascular conditions, recognition of acute coronary syndromes, cardiac arrest and life-threatening arrhythmia, ECG acquisition, initiation of emergency nursing interventions, basic and advanced life support according to training and authorization, and prompt escalation of care
Cardiology Ward and Coronary Care Unit (CCU)	Comprehensive cardiovascular assessment, monitoring of vital signs and cardiac rhythms, interpretation of ECG findings within nursing scope, administration and monitoring of prescribed cardiovascular medications, fluid balance, prevention of complications and patient education.
Cardiothoracic and Vascular Surgery Unit	Preoperative and postoperative nursing care for patients undergoing cardiac and vascular procedures, monitoring of hemodynamic status, wound and drain care, assessment of peripheral circulation, pain management, prevention of postoperative complications and preparation for discharge.
Cardiac Catheterization Laboratory and Interventional Cardiology	Preparation of patients for cardiac catheterization, coronary angiography and percutaneous coronary interventions; verification of consent and procedural readiness; monitoring during and after procedures; assessment of vascular access sites; recognition of bleeding and contrast-related complications; and maintenance of procedural safety.
Cardiac Intensive Care Unit (CICU)	Intensive nursing care for critically ill cardiovascular patients, continuous ECG and hemodynamic monitoring, assessment of perfusion, management of patients receiving ventilatory and circulatory support, monitoring of vasoactive medication infusions and early recognition of clinical deterioration.
Vascular Surgery and Peripheral Vascular Care Unit	Assessment of peripheral pulses, capillary refill and limb perfusion; care of patients with peripheral arterial and venous disorders; monitoring following vascular interventions; wound and ulcer management; recognition of acute limb ischemia and deep vein thrombosis; and prevention of vascular complications.
Cardiac Rehabilitation and Preventive Cardiology Services	Assessment of cardiovascular risk factors, supervised rehabilitation activities, exercise tolerance monitoring, lifestyle modification counselling, medication adherence education, dietary guidance, smoking cessation support and secondary prevention following cardiovascular events.
Cardiovascular Diagnostics and Non-invasive Laboratory	Preparation and monitoring of patients undergoing ECG, echocardiography, exercise stress testing, Holter monitoring and other available non-invasive cardiovascular investigations; patient education; identification of abnormal findings requiring escalation; and accurate documentation of diagnostic procedures.

9. Forensic Nursing and Indian Laws and Logbook

The fellow shall maintain a clinical logbook documenting all cardiovascular nursing procedures and clinical activities observed, assisted with or performed during the 840 hours of supervised clinical practice. Entries shall include the date, clinical area, procedure or activity, level of participation, competencies achieved and reflective learning. Each entry must be signed by the clinical preceptor and verified by the assigned guide.

The logbook shall demonstrate progressive competency in cardiovascular assessment, emergency management, cardiac monitoring, perioperative care, vascular assessment, patient education and rehabilitation. Procedures requiring specialized expertise shall be performed only under appropriate supervision and within the authorized scope of practice. Where suitable clinical cases are unavailable, supervised simulation may be used and documented separately from actual clinical experience.

9.1 Procedures observed (O)

No.	Procedure	Minimun
1	ECG	5
2	ULTRASOUND	5
3	JVP	2
4	CVP	3
5	MRI	3

9.2 Procedures assisted (A)

No	Procedure	Minimum	Simulation
1	ABG Analysis	10	sim
2	MRI	10	sim
3	ACLS	20	sim
4	ET tube insertion	20	sim
5	Defibrillation	10	
6	Treadmill	10	
7	Doppler ultrasound	5	
8	IABP	5	
9	Spirometer exercise	10	sim
10	Blood transfusion	5	
11	IV cannulation therapy	10	
12	Basic cardiac life support	10	Sim
13	DVT assessment	10	

9.3 Procedures performed (P)

No.	Procedure	Minimum	Sim
1	Cardiac assessment	5	Sim
2	Oxygen therapy	10	
3	Cardiopulmonary resuscitation,	10	
4	Basic cardiac life support,	10	
5	ECG	5	
6	Spirometry	5	Sim
7	Chest physiotherapy	5	
8	Suctioning	5	Sim
9	CPR	10	
10	Pulse oximeter	10	
11	Identification and care of patient with DVT	10	
12	Breath sounds	15	
13	Heart sounds	15	
14	Maintenance of heplock	20	
15	Allen's test	10	
16	Layout and design of cardiothoracic ICU	10	
17	Cardiac assessment	10	
18	Oxygen therapy	10	
19	Cardiopulmonary resuscitation,	10	
24	Basic cardiac life support,	10	
25	ECG	10	

No.	Procedure	Minimum	Sim
26	Spirometry	5	
27	Chest physiotherapy	10	
28	Suctioning	10	
29	CPR	10	
30	Pulse oximeter	10	

9.4 Logbook

- Each procedure or clinical activity must be recorded with the date, patient identification number (without identifiable patient details), procedure or activity, level of competency (O – Observed, A – Assisted, P – Performed), clinical or simulation setting, outcome, reflection, and preceptor's signature.
- The clinical guide must verify the logbook at the end of every posting. The Fellowship Coordinator reviews progress at weeks 8, 16, and 24.
- The logbook must be submitted to the assigned guide one week before the final assessment.

10. Scheme of Assessment

10.1 Final assessment and exit examination

The examination is conducted by the School of Nursing Science and Technology, Malla Reddy Vishwavidyapeeth. The final assessment by the assigned guides has three components.

Component	Details	Marks	Minimum (50%)
I. Multiple choice questions	Written paper; 1 mark per question; blueprint in 10.3	25	12.5
II. Practical skills assessment	Three case scenarios with discussion; 20 marks each	60	30
III. Logbook maintenance	Completeness and regularity; accuracy of entries; guide verification	15	7.5
Total		**100**	**50**

10.2 Criteria to pass

- Minimum 50% in each of the three components and minimum 50% aggregate (50 of 100).
- In terms of the earlier wording: 50% in theory (MCQ) and 50% in practical separately, and 50% in internal assessment. The logbook, which records the continuous assessment by guides and preceptors, is the internal assessment component.
- Minimum 80% attendance in theory, simulation and clinical postings; missed postings must be completed before the final assessment.
- A fellow who fails a component repeats only that component, at the next scheduled assessment within 6 months, once.
- Any additional output or deliverable (for example a case study, audit or teaching session) is decided with the guide and needs prior written approval of the Fellowship Committee.

10.3 MCQ blueprint (25 marks)

Unit	Title	Theory hours	MCQs
1	Introduction of Cardiac Conditions	5	2
2	Introduction of Vascular Conditions	5	2
3	Cardiac and Vascular medical conditions	15	2
4	Cardiac surgical conditions	10	2
5	Management of Cardiac and Vascular Emergency Conditions	15	3

Unit	Title	Theory hours	MCQs
6	Intensive Cardiothoracic Nursing	30	3
7	Pain Management	15	3
8	Infection control strategies	5	3
	Total	**100**	**25**

10.4 Practical skills assessment (60 marks)

Each fellow shall be assessed through three clinical or simulated case scenarios, with discussion. Each case carries 20 marks.

Criterion	Marks
Assessment and identification of clinical needs	5
Prioritization and preparation of the nursing care plan	4
Technical skills and implementation of nursing interventions	6
Patient safety, infection prevention, communication, and documentation	3
Discussion of rationale, complications, and evidence-based practice	2
Total per case	**20**

10.5 Logbook assessment (15 marks)

Criterion	Marks
Completeness and regularity	5
Accuracy of entries	5
Guide verification	5
Total	**15**

10.6 Formative assessment

Unit-wise MCQ tests, equipment and skill checklists, Logbook assessment, case presentations and viva (the assessment methods listed under each unit) are used as formative assessment and feedback during the fellowship; they do not carry marks in the final result. The guide records progress at the end of each posting.

10.7 Award of the certificate

The Fellowship in Forensic Nursing and Indian Laws certificate shall be awarded by Malla Reddy Vishwavidyapeeth (Deemed-to-be University) to fellows who successfully complete the prescribed theory, simulation and clinical requirements and satisfy the approved assessment criteria, on the recommendation of the Fellowship Committee and under the signatures of the Controller of Examinations and the Dean, School of Nursing Science and Technology.

11. Infrastructure, Faculty and Quality Assurance

11.1 Clinical facilities

The institution shall provide access to adequate clinical facilities for supervised cardiac and vascular nursing practice, including:

- Cardiology department and cardiac outpatient services.
- Cardiac intensive care unit (CICU) and coronary care unit (CCU).
- Cardiac catheterization laboratory for observation of diagnostic and interventional procedures.
- Cardiac operation theatre and postoperative cardiac recovery unit.
- Cardiothoracic and vascular surgery departments.
- Medical and surgical intensive care units for the management of critically ill cardiac patients.
- Emergency department and resuscitation facilities for acute cardiac and vascular emergencies.
- Electrocardiography (ECG), echocardiography and other non-invasive cardiac diagnostic facilities.

- Treadmill testing, Holter monitoring and other cardiac diagnostic services, as available.
- Vascular laboratory with facilities for Doppler studies and peripheral vascular assessment.
- Cardiac rehabilitation services include supervised exercise, patient education and risk-factor modification.
- Heart failure clinics and specialized services for the management of chronic cardiac conditions.
- Hemodynamic monitoring facilities and equipment for advanced cardiovascular assessment.
- Facilities for the care of patients with pacemakers, implantable cardioverter-defibrillators and other cardiac devices.
- Dialysis and multidisciplinary support services for patients with associated renal and cardiovascular conditions where available.
- Hospital medical records and electronic documentation facilities for cardiac assessment, treatment, nursing care and patient outcomes.
- Patient counselling, discharge planning and referral services for continuity of cardiovascular care.

11.2 Simulation laboratory

The simulation laboratory shall be equipped with suitable materials and facilities for cardiac and vascular nursing education, including:

- Adult cardiac and advanced life support manikins for cardiovascular emergency simulation.
- ECG machines, cardiac rhythm simulators and equipment for arrhythmia recognition and interpretation.
- Defibrillators automated external defibrillators (AEDs) and cardioversion training equipment.
- Cardiopulmonary resuscitation (CPR) training manikins and resuscitation equipment.
- Simulated hemodynamic monitoring systems for the interpretation of cardiovascular parameters.
- Equipment and training models for blood pressure measurement, peripheral pulse assessment and vascular assessment.
- Models and simulation resources for cardiac catheterization, angioplasty and stent placement procedures.
- Training resources for the nursing management of patients undergoing coronary angiography and other cardiac interventions.
- Models for pacemaker care, temporary pacing and implantable cardiac device management.
- Simulation materials for the assessment and management of acute coronary syndrome, heart failure, cardiogenic shock and cardiac arrhythmias.
- Vascular access training models for peripheral intravenous cannulation and central venous catheter care.
- Simulation resources for the nursing management of patients undergoing cardiac and vascular surgery.
- Equipment for oxygen therapy, suction, infusion therapy and emergency medication administration.
- Case-based simulation materials for anticoagulant therapy, thrombolytic therapy and prevention of complications.
- Computers and audiovisual facilities for ECG interpretation, clinical case discussions and simulation-based assessment.
- Standardized competency checklists, nursing care plans, clinical documentation forms and logbooks.

11.4 Faculty Requirements

The fellowship shall be supported by appropriately qualified faculty and clinical preceptors with relevant expertise in:

- Cardiovascular nursing and advanced cardiac care.
- Cardiology and interventional cardiology.

- Cardiothoracic and vascular surgery.
- Critical care nursing and hemodynamic monitoring.
- Emergency nursing and cardiovascular resuscitation.
- Cardiac diagnostics, ECG interpretation and cardiac imaging.
- Cardiovascular pharmacology and medication safety.
- Cardiac rehabilitation and preventive cardiology.
- Management of heart failure, arrhythmias and postoperative cardiac complications.
- Vascular assessment, peripheral arterial disease and venous disorders.
- Patient education, counselling and multidisciplinary cardiovascular care.

Guest lectures, demonstrations and supervised clinical learning sessions may be arranged with cardiologists, cardiac surgeons, interventional specialists, cardiac intensivists, rehabilitation professionals and other subject experts, subject to institutional approval.

11.3 Classroom and learning resources

- Smart classroom with audiovisual teaching facilities.
- Library with current textbooks and journals on forensic nursing, forensic medicine, criminology, victimology and Indian laws.
- Access to current legislation, court judgments and official government publications.
- Digital learning resources on forensic evidence collection, medico-legal documentation and victim-centred care.
- Learning Management System (LMS) for lecture notes, clinical checklists, case studies, assignments and logbook formats.
- Access to relevant guidelines from the Ministry of Health and Family Welfare, Indian Nursing Council and other appropriate authorities.
- Reference materials on BNS, BNSS, BSA, POCSO Act and other relevant central and state legislation.
- Guest lectures and supervised learning sessions may be arranged with forensic experts, legal professionals, investigating officers and victim-support specialists, subject to institutional approval.

11.4 Quality assurance

- Fellow feedback shall be collected for each theory unit, simulation session and clinical posting.
- Clinical guides and preceptors shall provide feedback at the midpoint and completion of each clinical posting.
- The Fellowship Committee shall review the curriculum annually and update its content in accordance with current evidence-based cardiovascular care guidelines and professional standards.
- Clinical competencies shall be assessed using standardized checklists, direct observation, case presentations and documented logbook entries.
- Fellows demonstrate competency in ECG interpretation, cardiovascular assessment, hemodynamic monitoring, emergency response and the nursing management of cardiac and vascular conditions.
- Simulation-based assessments shall be conducted for CPR, defibrillation, arrhythmia recognition and the initial nursing management of cardiovascular emergencies.
- Clinical case studies, care plans, procedure records and reflective learning activities shall be reviewed periodically.
- Grievances shall be addressed through the Fellowship Coordinator, with escalation to the Dean or designated authority where required.
- Patient confidentiality, informed consent, dignity and privacy shall be maintained during all clinical, simulation and educational activities.
- Fellows shall practice within their authorized professional scope and under appropriate supervision, particularly during invasive procedures, medication administration and emergency interventions.

- Infection prevention, medication safety, radiation safety in catheterization laboratories and safe handling of clinical equipment shall be ensured in accordance with institutional policies.
- Clinical incidents, near misses and adverse events encountered during training shall be reported and reviewed according to established hospital procedures.
- Patient outcomes, clinical performance, competency completion and feedback shall be periodically reviewed to support continuous improvement of the fellowship programme.

12. Suggested References

- World Health Organization (WHO). Resources and guidelines on cardiovascular diseases, hypertension and the prevention and control of noncommunicable diseases.
- Ministry of Health and Family Welfare, Government of India. National Programme for Prevention and Control of Non-Communicable Diseases (NP-NCD) and relevant cardiovascular health resources.
- Indian Council of Medical Research (ICMR). Guidelines and research resources on cardiovascular diseases and related risk factors.
- Indian Nursing Council (INC). Applicable nursing education standards, regulations and professional practice guidance.
- American Heart Association (AHA). Guidelines for cardiopulmonary resuscitation, emergency cardiovascular care and advanced cardiovascular life support.
- European Society of Cardiology (ESC). Clinical practice guidelines on acute coronary syndromes, heart failure, arrhythmias and cardiovascular disease prevention.
- American College of Cardiology (ACC). Clinical practice guidelines and educational resources on cardiovascular disease management.
- Cardiological Society of India (CSI). Clinical practice guidelines, consensus statements and educational resources on cardiovascular care in India.
- Society of Cardiovascular and Thoracic Surgeons of India (SCVTSI). Relevant professional resources on cardiothoracic and vascular surgical care.
- Relevant textbooks on cardiovascular nursing, cardiac surgery nursing, critical care nursing, cardiac pharmacology and vascular assessment prescribed by the Board of Studies.
- Current evidence-based protocols and standard operating procedures for ECG interpretation, cardiac monitoring, hemodynamic assessment, cardiac catheterization care, anticoagulation management, cardiac rehabilitation and cardiovascular emergency nursing.

Annexure A: Final Assessment Sheet – MRV Fellowship

A. Fellow details

Name of fellow	
Fellowship ID	
Institution / department	
Batch / year	

Component I: Multiple choice questions (25 marks)

Number of questions: _____ Marks obtained: _____ / 25 Result: ☐ Pass ☐ Fail (minimum 50% required)

Component II: Practical skills assessment (60 marks)

Case	Maximum marks	Marks obtained	Examiner signature
Case 1	20		
Case 2	20		
Case 3	20		
Total	**60**		

Result: ☐ Pass ☐ Fail (minimum 50% required)

Component III: Logbook maintenance (15 marks)

Criteria: completeness and regularity; accuracy of entries; guide verification. Marks obtained: _____ / 15 Result: ☐ Pass ☐ Fail (minimum 50% required)

Overall assessment summary

Component	Maximum marks	Marks obtained	Pass / fail
MCQs	25		
Practical skills	60		
Logbook	15		
Total	**100**		

Final result: ☐ Pass ☐ Fail (minimum 50% aggregate required)

Additional outputs (if approved by the Fellowship Committee):

_____

Certification

We certify that the above final assessment and exit examination have been conducted strictly in accordance with the approved MRV Fellowship guidelines.

Date: _____

1. Name of guide / examiner	
Signature	
2. Name of guide / examiner	
Signature	

Annexure B: Logbook Formats

B.1 Procedure log

Date	Patient ID	Procedure	Level (O/A/P)	Clinical / Sim	Outcome and reflection	Preceptor signature

Date	Patient ID	Procedure	Level (O/A/P)	Clinical / Sim	Outcome and reflection	Preceptor signature

B.2 Posting summary

Posting	Dates	Hours completed	Competencies signed off	Guide signature
Emergency Department and Cardiac Care Unit				
Cardiology Ward and Coronary Care Unit (CCU)				
Cardiothoracic and Vascular Surgery Unit				
Cardiac Catheterization Laboratory and Interventional Cardiology				
Cardiac Intensive Care Unit (CICU)				
Vascular Surgery and Peripheral Vascular Care Unit				
Cardiac Rehabilitation and Preventive Cardiology Services				
Cardiovascular Diagnostics and Non-invasive Laboratory				

B.3 Case study / presentation log

No.	Date	Diagnosis / condition	Area	Guide remarks and signature

Annexure C: Certificate of Completion (format)

MALLA REDDY VISHWAVIDYAPEETH

(Deemed to be University)

This is to certify that

_____

Fellowship ID _____ has successfully completed the 26-week

FELLOWSHIP IN CARDIAC AND VASCULAR CARE

at the School of Nursing Science and Technology and has passed the final assessment and exit examination held in _____ with a total of _____ / 100 marks.

Date of issue: _____	Place: Hyderabad
Controller of Examinations	Dean, School of Nursing Science and Technology