MALLA REDDY VISHWAVIDYAPEETH
(Deemed to be University)
Hyderabad

School of Nursing Science and Technology

FELLOWSHIP IN

FELLOWSHIP IN CRITICAL CARE NURSING

Curriculum 2026

Programme particulars	
Level	Post-registration fellowship (nursing)
Duration	26 weeks (6 months) – 1,000 hours
Structure	Theory 100 h · Simulation laboratory 60 h · Clinical practice 840 h
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 Nursing – School of Nursing Sciences & Technology	
2	Academic Council	
3	Executive Council	

Contents

1. Preamble and Need for the Programme

2. Vision, Mission and Programme Objectives

3. Programme at a Glance

4. Eligibility, Selection and Governance

5. Programme Outcomes

6. Curriculum Framework

7. Detailed Syllabus: Emergency and Trauma Care Nursing

8. Clinical Practice: Postings (840 hours)

9. Essential Emergency and Trauma Care Skills and Logbook

10. Scheme of Assessment

11. Infrastructure, Faculty and Quality Assurance

12. Suggested References

Annexure A: Final Assessment Sheet – MRV Fellowship

Annexure B: Logbook Formats

Annexure C: Certificate of Completion (format)

1. Preamble and Need for the Programme

Malla Reddy School of Nursing Science and Technology recognizes the growing demand for professionally trained nurses who can provide specialized care to critically ill patients in intensive care units and other high-dependency clinical settings. Critical care nurses play a vital role in the early identification of clinical deterioration, continuous patient monitoring, stabilization of vital functions, implementation of life-saving interventions and prevention of complications. Specialized training is therefore essential to ensure safe, effective and evidence-based nursing care for patients with life-threatening conditions.

The **Fellowship in Critical Care Nursing** is designed to enhance the knowledge, clinical skills and professional competencies of nurses in the assessment, monitoring and management of critically ill patients. The programme focuses on the principles of intensive care nursing, advanced haemodynamic monitoring, mechanical ventilation, airway management, emergency resuscitation, management of multi-organ dysfunction and care of patients with complex medical and surgical conditions. It enables nurses to recognize early warning signs, understand the etiology and pathophysiology of critical illnesses, interpret diagnostic findings and implement appropriate nursing and collaborative interventions.

The fellowship also emphasizes critical care pharmacology, advanced medical equipment, infection prevention and control, patient safety, ethical decision-making, communication with patients' families and interdisciplinary teamwork. Through structured clinical exposure, simulation-based learning, case-based discussions and supervised bedside practice, nurses are prepared to deliver comprehensive, individualized and outcome-oriented care in intensive care and high-dependency units.

The programme aims to strengthen clinical judgement, critical thinking, professional confidence and leadership skills among nurses, enabling them to respond effectively to complex and rapidly changing patient conditions. Ultimately, the Fellowship in Critical Care Nursing seeks to improve the quality and safety of critical care services, reduce preventable complications, promote better patient outcomes and contribute to the development of a competent and skilled critical care nursing workforce.

1.1 Need

- The increasing incidence of life-threatening medical and surgical conditions, cardiovascular emergencies, respiratory failure, sepsis and multi-organ dysfunction has created a growing demand for skilled critical care nurses who can provide timely, specialized and evidence-based care to critically ill patients.
- Basic nursing programmes provide foundational knowledge and clinical experience; however, specialized competencies in advanced haemodynamic monitoring, mechanical ventilation, critical care procedures, management of critically ill patients and prevention

of intensive care complications require further structured training. A systematic, competency-based post-registration fellowship helps bridge this gap.

- Hospitals and intensive care units require nurses who can recognize early signs of clinical deterioration, assist in advanced life-support interventions, manage complex medical equipment, coordinate multidisciplinary care, supervise junior nursing staff and educate patients' families. The Fellowship in Critical Care Nursing aims to develop these competencies and strengthen the quality, safety and effectiveness of critical care services.

2. Vision, Mission and Programme Objectives

2.1 Vision

To prepare competent and compassionate critical care nurses who deliver safe, evidence-based, patient-centred care to critically ill patients and contribute to excellence in intensive care services through clinical expertise, professional leadership and continuous quality improvement.

2.2 Mission

- To provide competency-based education and training in critical care nursing through structured clinical exposure, simulation-based learning and supervised bedside practice.
- To promote ethical, patient-centred and safe nursing practice in intensive care units and other critical care settings, with emphasis on infection prevention, patient safety and the prevention of complications.
- To develop advanced clinical judgement, critical thinking, teamwork and leadership skills for the effective management of critically ill patients, including those requiring mechanical ventilation, haemodynamic monitoring and life-support interventions.
- To strengthen the ability of nurses to recognize early signs of clinical deterioration, respond promptly to life-threatening conditions and collaborate effectively with multidisciplinary healthcare teams.
- To encourage evidence-based practice, continuous professional development and quality improvement in critical care nursing to enhance patient outcomes and the overall quality of intensive care services.

2.3 Programme Objectives

After successful completion of the Fellowship in Critical Care Nursing, the fellow will be able to:

1. Provide safe, comprehensive and evidence-based nursing care to critically ill patients in intensive care units and other critical care settings, ensuring patient safety and quality outcomes.

2. Assess, monitor, manage and evaluate the nursing care of critically ill patients, including those requiring mechanical ventilation, advanced haemodynamic monitoring, life-support interventions and management of multi-organ dysfunction.

3. Educate and guide nurses, allied health professionals, patients and family members regarding critical illness, intensive care procedures, infection prevention, patient safety and rehabilitation needs following critical illness.

4. Recognize early signs of clinical deterioration, interpret relevant diagnostic findings and initiate appropriate nursing interventions and timely escalation of care in life-threatening situations.

5. Operate and monitor critical care equipment safely, including ventilators, cardiac monitors, infusion pumps and other life-support devices, while adhering to infection prevention and control practices.

6. Maintain ethical, legal and professional standards in critical care nursing, including accurate clinical documentation, effective handover, patient confidentiality and informed participation in multidisciplinary decision-making.

7. Demonstrate effective communication, teamwork, clinical leadership and coordination in the delivery of care to critically ill patients and their families.

8. Apply evidence-based practices and participate in quality improvement initiatives to prevent complications, reduce healthcare-associated infections and improve patient outcomes in critical care settings.

3. Programme at a Glance

Item	Details
Name of the programme	Fellowship in Critical Care Nursing
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 Hrs, Simulation laboratory-60 Hrs, Clinical practice-840 Hrs
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 on the basis of 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 emergency or critical care nursing.
- Clinical preceptors: nurses with at least two years of emergency or critical care experience and a valid BLS/ACLS 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 etiology, pathophysiology, diagnostic findings and management of acute, traumatic and life-threatening conditions.
PO2	Assessment and triage	Performs rapid and systematic assessment, triage and monitoring and recognizes life-threatening deterioration.
PO3	Critical Care Interventions	Provides safe and competent nursing care to critically ill patients, including those requiring airway management, mechanical ventilation, cardiopulmonary resuscitation, haemodynamic support and other life-support interventions.
PO4	Communication and education	Communicates and hands over clearly, documents accurately, supports patients and families in crisis and educates patients, families and staff.
PO5	Safety, infection control and ethics	Applies infection-prevention, medication and equipment safety, consent, confidentiality and ethical decision-making.

PO6	Leadership and evidence	Demonstrates clinical leadership, supervises nursing care, collaborates with multidisciplinary healthcare teams and applies evidence-based guidelines and protocols to improve the quality and safety of critical care services.

6. Curriculum Framework

6.1 Distribution of hours

Unit	Title	Theory (h)	Simulation lab (h)
1	Introduction to Critical Care Nursing	12	8
2	Comprehensive Assessment and Monitoring of Critically Ill Patients	12	4
3	Pain, Sedation and Delirium Management	10	8
4	Infection Prevention and Control in Critical Care	10	6
5	Respiratory Critical Care and Mechanical Ventilation	12	12
6	Intensive Cardiothoracic and Hemodynamic Nursing	18	12
7	Renal, Neurological and Multi-Organ Dysfunction Care	13	6
8	Critical Care Pharmacology, Life Support and Patient Safety	13	4
	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, BLS certification, Units I and II, infection-control orientation, equipment familiarization; posting in the emergency department begins
3–20	Clinical postings as in Section 8, with theory (Units III–VIII) 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, videos and case-based learning
- Simulation laboratory: manikins, defibrillator, ventilator, monitors, trauma and burn stations
- Bedside teaching, supervised procedures and graded responsibility in clinical postings
- Group discussion, role play, peer-led presentations, music therapy and relaxation demonstrations
- Emergency and disaster drills; scenario OSCE practice
- Logbook reflection and guide feedback

7. Detailed Syllabus: Critical Care Nursing

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 Critical Care Nursing

Theory: 12 hours · Simulation laboratory: 8 hours

Learning objectives

- Explain the principles, scope and importance of critical care nursing
- Describe the organization and functioning of intensive care units (ICUs).
- Identify the roles and responsibilities of critical care nurses.

Content

1. Introduction to Critical Care Nursing
   - Historical development of critical care nursing
   - Concepts, definitions, and principles of critical care nursing
   - Scope, objectives, and functions of critical care nursing
   - Role and responsibilities of the critical care nurse
   - Ethical principles and professional standards in critical care nursing
2. Critical Care Unit (CCU/ICU) Set-up and Management
   - Design, layout, and organization of the intensive care unit (ICU)
   - Equipment, supplies, and maintenance of the critical care unit
   - Use and care of cardiac monitors, pulse oximeters, infusion pumps, syringe pumps, and ventilators
   - Monitoring of vital signs and hemodynamic parameters
   - Arterial blood gas (ABG) analysis and interpretation
3. Assessment and Monitoring of Critically Ill Patients
   - Primary and secondary assessment of critically ill patients
   - Airway, breathing, and circulation (ABC/ABCDE) assessment
   - Neurological assessment and Glasgow Coma Scale (GCS)
   - Cardiovascular and respiratory assessment
   - Hemodynamic monitoring and interpretation

Teaching–learning activities: Lectures, group discussions, ICU orientation, case-based learning and simulation exercises.

Assessment methods: Written examination, oral presentation, case discussion and objective structured clinical examination (OSCE).

Course outcomes (CO)

CO	Course outcome: the fellow will be able to
CO1	Describe the evolution, concepts, principles and scope of emergency and trauma care.
CO2	Identify the layout, equipment, supplies and flow sheets of an emergency or critical care unit and operate monitors and ventilators under supervision.

CO3	Describe the organization, functions and professional responsibilities associated with ICU practice.
CO4	Follow medico-legal requirements and structured handover in emergency care.

Unit II: Comprehensive Assessment and Monitoring of Critically Ill Patients

Theory: 12 hours · Simulation laboratories: 6 hours

Learning objectives

- Perform systematic assessment of critically ill patients.
- Interpret vital signs and identify early signs of clinical deterioration.
- Demonstrate appropriate monitoring techniques.

Content

1. Concept of Holistic Care in Critical Care Nursing

- Concept, principles, and importance of holistic care in critical care nursing
- Physical, psychological, social, emotional, and spiritual needs of critically ill patients
- Individualized and patient-centred care in the critical care unit
- Holistic assessment and nursing interventions for critically ill patients

2. Psychophysiological and Psychosocial Impact of the Critical Care Unit on Patients

- Physical and psychological responses to critical illness and ICU admission
- Risk factors contributing to anxiety, fear, stress, sleep disturbances, and delirium
- Assessment of psychological status and cognitive function
- ICU delirium and critical illness-related psychological disturbances: causes, clinical manifestations, assessment, prevention, and nursing management
- Effects of mechanical ventilation, pain, sedation, sensory overload, and sensory deprivation

3. Caring for the Patient's Family

- Psychological and emotional impact of critical illness on family members
- Assessment of family needs, anxiety, stress, and coping mechanisms
- Family-centered care and family participation in patient care
- Therapeutic communication and emotional support for families
- Family counselling and education regarding the patient's condition, treatment, and prognosis
- Teaching families about infection prevention, equipment, nutrition, and rehabilitation as appropriate

Teaching–learning activities: Demonstrations, simulation-based assessment, ECG interpretation exercises and case-based discussions.

Assessment methods: Case presentation; role play assessment

CO	Course outcome: the fellow will be able to
CO1	**The fellow will be able to assess critically ill patients systematically**
CO2	Interpret monitoring findings and recognize clinical deterioration requiring prompt intervention.

Unit III: Pain, Sedation and Delirium Management

Theory: 10 hours · Simulation laboratories: 6 hours

Learning objectives

- Assess pain and discomfort in critically ill patients.
- Explain the principles of sedation and delirium assessment.
- Implement appropriate nursing interventions to promote comfort and safety.

Content

1. **Pain and Sedation in Critically Ill Patients**
   - Concept, definition, and importance of pain management in critical care nursing
   - Theories of pain: specificity theory, pattern theory, gate control theory, and neuromatrix theory
   - Types of pain: acute, chronic, nociceptive, neuropathic, visceral, and somatic pain
   - Causes and risk factors of pain in critically ill patients
   - Physiological and psychological responses to pain
   - Pain assessment tools for conscious, non-verbal, and mechanically ventilated patients

Teaching–learning activities: Case studies, role-play, bedside demonstrations and simulation scenarios.

Assessment methods: Skill demonstration checklist; MCQs

Course outcomes (CO)

CO	Course outcome: the fellow will be able to
CO1	The fellow will be able to assess pain, monitor sedation
CO2	Recognize delirium and implement appropriate comfort and safety measures.

Unit IV: Infection Prevention and Control in Critical Care

Theory: 10 hours · Simulation laboratories: 6 hours

Learning objectives

- Explain infection prevention principles in critical care settings.
- Demonstrate safe practices for invasive devices and procedures.
- Identify strategies to prevent healthcare-associated infections.

Content

1. **Introduction to Infection Prevention and Control**

- Concept, definition, and importance of infection prevention and control in critical care nursing
- Principles of infection prevention and control in the intensive care unit (ICU)
- Sources, modes of transmission, and risk factors for healthcare-associated infections (HAIs)
- Common infections in critically ill patients

2. Infection Control Practices in the Critical Care Unit

- Hand hygiene: indications, techniques, and the WHO Five Moments for Hand Hygiene
- Use of personal protective equipment (PPE): selection, donning, and doffing
- Aseptic technique and medical asepsis
- Sterilization, disinfection, and decontamination of equipment
- Environmental cleaning and disinfection of ICU surfaces

Teaching–learning activities: Demonstrations, infection-control audits, hand-hygiene practice and simulation-based aseptic procedures.

Assessment methods: Skill demonstration checklist; MCQs

Course outcomes (CO)

CO	Course outcome: the fellow will be able to
CO1	The fellow will be able to implement infection prevention measures and demonstrate safe practices to reduce healthcare-associated infections
CO2	Monitor compliance with infection control protocols in critical care settings.

Unit V: Respiratory Critical Care and Mechanical Ventilation

Theory: 14 hours · Simulation laboratories: 10 hours

Learning objectives

- Explain the assessment and management of respiratory failure.
- Describe the principles of oxygen therapy and mechanical ventilation
- Demonstrate nursing responsibilities in caring for ventilated patients

Content

1. **Trauma and Emergency Management in Critical Care**

- Concept, classification, and mechanisms of injury
- Pathophysiology and physiological responses to trauma
- Initial assessment and stabilization of the critically injured patient
- Primary and secondary surveys using the ABCDE approach

2. **Shock and Its Management in Critical Care**

- Concept, classification, causes, and pathophysiology of shock
- Stages of shock and clinical manifestations
- Assessment and monitoring of tissue perfusion and haemodynamic status
- Hypovolemic shock: causes, clinical features, and management

- Cardiogenic shock: causes, assessment, and management
- Distributive shock: concept and classification

Teaching–learning activities: Ventilator demonstrations, airway management simulation, ABG interpretation exercises and case-based learning.

Assessment methods: Scenario OSCE; written test; group project

Course outcomes (CO)

CO	Course outcome: the fellow will be able to
CO1	The fellow will be able to assess respiratory function,
CO2	Explain ventilatory support and provide safe nursing care to patients receiving oxygen therapy and mechanical ventilation.

Unit VI: Intensive Cardiothoracic and Hemodynamic Nursing

Theory: 14 hours · Simulation laboratories: 8 hours

Learning objectives

- Explain the assessment and management of cardiovascular instability.
- Interpret basic ECG findings and hemodynamic parameters.
- Describe nursing care for patients with cardiac and thoracic conditions.

Content

1. **Introduction to Intensive Cardiothoracic and Hemodynamic Nursing**

- Concept, principles, and scope of intensive cardiothoracic nursing
- Organization and management of the cardiothoracic intensive care unit (CTICU)
- Role and responsibilities of the critical care nurse in cardiothoracic care

aerodynamic Monitoring and Assessment.

2. **Principles and objectives of hemodynamic monitoring**

- Assessment of cardiovascular function and tissue perfusion
- Invasive and non-invasive hemodynamic monitoring
- Monitoring and interpretation of arterial blood pressure, central venous pressure (CVP), pulmonary

3. **Critical Care Management of Cardiothoracic Disorders**

- Acute coronary syndromes and myocardial infarction
- Acute and chronic heart failure
- Cardiogenic shock and low cardiac output syndrome
- Cardiac arrhythmias and conduction disturbances
- Valvular heart diseases and postoperative complications

Teaching–learning activities: ECG workshops, cardiac monitoring demonstrations, resuscitation simulation and case discussions.

Assessment methods: Written tests, ECG interpretation, clinical case analysis and OSCE

Course outcomes (CO)

CO	Course outcome: the fellow will be able to
CO1	The fellow will be able to assess cardiovascular status,
CO2	Recognize hemodynamic instability and provide appropriate nursing care to patients with cardiac and thoracic conditions

Unit VII: Renal, Neurological and Multi-Organ Dysfunction Care

Theory: 10 hours · Simulation laboratories: 6 hours

Learning objectives

- Explain the nursing management of renal and neurological emergencies in critical care.
- Identify clinical manifestations of sepsis and multi-organ dysfunction.
- Monitor fluid, electrolyte and neurological status.

Content

1. **Critical Care Nursing in Renal Disorders**

- Principles of critical care nursing for patients with acute and chronic renal disorders
- Assessment of renal function: urine output, fluid balance, serum creatinine, blood urea, and electrolyte levels
- Acute kidney injury (AKI): causes, stages, clinical manifestations, diagnosis, and management
- Chronic kidney disease (CKD) and acute-on-chronic renal failure
- Fluid overload, dehydration, and electrolyte imbalances

2. **Critical Care Nursing in Neurological Disorders**

- Principles of neurological assessment and critical care management
- Assessment of consciousness using the Glasgow Coma Scale (GCS)
- Pupillary assessment, motor response, and neurological observations
- Monitoring of intracranial pressure (ICP) and cerebral perfusion pressure (CPP)
- Head injury, traumatic brain injury, and intracranial hemorrhage
- Stroke: ischemic and hemorrhagic stroke, assessment, and emergency management

3. **Critical Care Nursing in Multi-Organ Dysfunction Syndrome (MODS)**

- Concept, causes, pathophysiology, and clinical manifestations of MODS
- Systemic inflammatory response syndrome (SIRS), sepsis, and septic shock
- Early recognition and assessment of organ dysfunction
- Sequential Organ Failure Assessment (SOFA) and other relevant clinical assessment tools
- Respiratory dysfunction and acute respiratory distress syndrome (ARDS)

Teaching–learning activities: Case-based discussions, neurological assessment demonstrations, fluid-balance exercises and simulation scenarios.

Assessment methods: Written examination, case presentations, practical demonstrations and clinical evaluation.

Course outcomes (CO)

CO	Course outcome: the fellow will be able to

CO1	The fellow will be able to identify major renal, neurological and systemic complications.
CO2	The student implements appropriate nursing monitoring and collaborative care.

Unit 8: Critical Care Pharmacology, Life Support and Patient Safety

Theory: 8 hours · Simulation laboratories: 10 hours

Learning objectives

- Explain the principles of pharmacological management in critical care.
- Demonstrate safe medication administration and infusion monitoring.
- Apply life-support principles, patient safety practices and effective communication.

Content

1. **Critical Care Pharmacology**

- Principles of pharmacology in critically ill patients
- Pharmacokinetics and pharmacodynamics in critical illness
- Factors affecting drug absorption, distribution, metabolism, and excretion
- Medication administration routes, infusion devices, and safe infusion practices
- High-alert medications and prevention of medication errors
- Vasoactive drugs and inotropes: indications, administration, monitoring, and adverse effects.
- Antiarrhythmic drugs and medications used in cardiac emergencies

2. **Life Support in Critical Care Nursing**

- Basic Life Support (BLS) and Cardiopulmonary Resuscitation (CPR)
- Advanced Cardiovascular Life Support (ACLS)
- Recognition and management of cardiac arrest
- Automated external defibrillator (AED) use and manual defibrillation
- Management of shockable and non-shockable cardiac rhythms
- Airway management, oxygen therapy, and assisted ventilation

3. Patient Safety in Critical Care

- Concepts, principles, and importance of patient safety in the ICU
- Identification of patient safety risks and prevention of adverse events
- Patient identification and safe communication practices
- Prevention of medication errors and safe administration of high-alert drugs
- Prevention of falls, pressure injuries, aspiration, and accidental device removal
- Infection prevention and control practices in critical care
- Safe use and monitoring of ventilators, infusion pumps, monitors, and other ICU equipment

Teaching–learning activities: Medication safety workshops, infusion pump demonstrations, resuscitation simulation, structured handover exercises and scenario-based learning.

Assessment methods: Written examination, medication safety assessment, simulation-based OSCE, clinical documentation review and competency checklists.

Course outcomes (CO)

CO	Course outcome: the fellow will be able to
CO1	The fellow will be able to apply safe medication practices,
CO2	participate effectively in life-support interventions,
CO3	communicate clinical information accurately and promote patient safety in critical care settings.

8. Clinical Practice: Postings (840 hours)

Clinical area	Weeks	Hours
Medical Intensive Care Unit (MICU)	8	280
Surgical Intensive Care Unit (SICU)	4	140
Cardiac ICU / Coronary Care Unit (CCU)	4	140
Respiratory ICU and Mechanical Ventilation Unit	3	100
Neurological Intensive Care Unit	2	60
Nephrology ICU / Dialysis Unit	3	80
Emergency Resuscitation and Critical Care Stabilisation Unit	2	40
Total	**26**	**840**

Postings run in the order that suits the roster, but the emergency department posting starts in week 1 and the cardiac and burns postings follow the teaching of Units VI and VII. Postings are for the practical hours only; theory and simulation hours are in addition to those listed here within the 1,000-hour total. Each posting ends with a guide-verified competency sign-off in the logbook.

8.1 Expected learning in each posting

Posting	Focus
Medical Intensive Care Unit (MICU)	Comprehensive assessment of critically ill patients; monitoring vital signs and hemodynamic parameters; management of sepsis, shock and multi-organ dysfunction;
Surgical Intensive Care Unit (SICU)	Postoperative assessment; airway and ventilator care; hemodynamic monitoring; pain and sedation assessment; surgical drain care;
Cardiac ICU / CCU	ECG recording and interpretation; cardiac rhythm monitoring; recognition of acute coronary syndromes and arrhythmias; principles of BLS and ACLS;
Respiratory ICU	Respiratory assessment; oxygen therapy; airway suctioning; tracheostomy care; mechanical ventilation and ventilator alarm monitoring; ABG interpretation; non-invasive ventilation;
Neurological ICU	Glasgow Coma Scale assessment; pupillary and neurological assessment; monitoring patients with stroke, seizures and head injuries; recognition of raised intracranial pressure;
Nephrology ICU / Dialysis Unit	Fluid balance monitoring; identification of acute kidney injury; electrolyte and acid–base assessment; preparation for renal replacement therapy;
Emergency Resuscitation and Critical Care Stabilization Unit	Rapid assessment of deteriorating patients; basic and advanced life-support principles; recognition of shock; emergency airway management; resuscitation assistance;

9. Essential Critical Care Nursing Skills and Logbook

The fellow shall maintain a clinical logbook in which all procedures and clinical competencies are recorded. Each entry must be signed by the clinical preceptor and verified by the faculty guide. The proposed minimum numbers below apply to the 840 clinical practice hours.

9.1 Procedures observed (O)

No.	Procedure	Minimum
1	CT scan of critically ill patient	2
2	MRI of critically ill patients	2
3	Electroencephalography (EEG	2
4	Hemodialysis / continuous renal replacement therapy (CRRT	2
5	Echocardiography in critical care	2
6	Bronchoscopy in critically ill patient	2
7	Cardiac, neurological, gastrointestinal or renal surgery	2

9.2 Procedures assisted (A)

No.	Procedure	Minimum	Simulation
ion1	Advanced Cardiovascular Life Support (ACLS)	5	Sim
2	Basic Life Support (BLS)	5	Sim
3	Arterial line / arterial pressure monitoring / blood sampling	3	
4	Arterial blood gas	5	
5	ECG recording	10	
6	Blood transfusion	5	
7	IV cannulation therapy	10	
8	Arterial catheterization	2	Sim
9	Chest tube insertion	2	Sim
10	Endotracheal intubation	3	Sim
11	Ventilation	5	
12	Insertion of central line / CVP line	3	Sim
13	Connecting lines for dialysis	2	

9.3 Procedures performed (P)

No.	Procedure	Minimum	Simulation
1	Airway management: oropharyngeal airway	5	Sim
2	Oxygen therapy	10	
3	CPAP	3	
4	Care of tracheostomy	5	
5	Endotracheal extubation	2	
6	Cardiopulmonary resuscitation, BCLS, ECG	10	Sim
7	Monitoring of critically ill patients: clinical, with monitors, capillary refill time, jaundice assessment, ECG	20	
8	Gastric lavage	3	Sim
9	Assessment of critically ill patients: risk factors, Glasgow coma scale, doll's eye movement, arterial pressure, cardiac output / pulmonary artery pressure monitoring, detection of life-threatening	20	

	abnormalities		
10	Admission and discharge of critically ill patients	10	
11	Nutritional needs: gastrostomy, pharyngeal and jejunostomy feeds, TPN, formula preparation, patient education	10	
12	Blood sugar monitoring and insulin administration	10	
13	Administration of drugs: IM, IV, IV cannulation and fixation, infusion pump, dose calculation, insulin and tuberculin syringes, fluid therapy, blood administration	30	
14	Setting up, starting, monitoring and closing a dialysis machine	3	
15	Infection prevention: hand washing, disinfection and sterilization surveillance, fumigation, universal precautions	10	
16	Collection of specimens	20	
17	Setting, use and maintenance of basic equipment: ventilator, O_2 analyzer, monitors, transducers, defibrillator, infusion and syringe pumps, centrifuge	10	

9.4 Logbook

- Entry for every procedure: date, patient identification number, procedure, level (O/A/P), setting (clinical/Sim), outcome, reflection, preceptor signature.
- Guide verification at the end of every posting; Fellowship Coordinator reviews at weeks 8, 16 and 24.
- Case log: at least 10 case studies or case presentations with nursing care plans, from the emergency, trauma, cardiac, burns and obstetric areas.
- The logbook is submitted to the 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 to Critical Care Nursing	12	3
2	Comprehensive Assessment and Monitoring of Critically Ill Patients	12	2
3	Pain, Sedation and Delirium Management	10	3
4	Infection Prevention and Control in Critical Care	10	2
5	Respiratory Critical Care and Mechanical Ventilation	12	4
6	Intensive Cardiothoracic and Hemodynamic Nursing	18	5
7	Renal, Neurological and Multi-Organ Dysfunction Care	13	3
8	Critical Care Pharmacology, Life Support and Patient Safety	13	3
	Total	**100**	**25**

10.4 Practical skills assessment (60 marks)

Each fellow will be assessed on three case scenarios in a simulated or clinical setting, followed by discussion and evaluation of clinical decision-making, practical skills, and nursing management. The three cases together will cover trauma or shock, a cardiac or respiratory emergency, and renal, neurological, or multi-organ dysfunction.Each case carries 20 marks.

Criterion	Marks
Comprehensive assessment of the critically ill patient (ABCDE approach, vital signs, clinical history, and recognition of deterioration)	5
Prioritization and nursing care plan	4
Technical skill in the intervention (airway, CPR, IV, monitoring, wound, drug and dose)	6
Safety, infection control and communication / handover	3
Discussion (rationale, complications, evidence)	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, 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 Critical Care Nursing certificate is awarded by Malla Reddy Vishwavidyapeeth (Deemed to be University) to a fellow who satisfies the criteria in 10.2, on the recommendation of the Fellowship Committee and under the signature of the Controller of Examinations and the Dean.

11. Infrastructure, Faculty and Quality Assurance

11.1 Clinical facilities

- Teaching hospital with 24-hour Critical care units like CICU, SICU, Dialysis unit, with enough admissions to meet the logbook minimums.
- Affiliation or MoU with ambulance, imaging, EEG and endoscopy services for the observation postings.

11.2 Simulation laboratory

- Adult CPR/ACLS manikin with defibrillator; airway trainers; IV and arterial puncture arms; central line trainer
- Chest tube and trauma skills stations; burn and wound care models
- Ventilator, multipara monitors, ECG machine, infusion and syringe pumps, suction, oxygen delivery devices

11.3 Classroom and learning resources

- Smart classroom, library and digital resources, and online access to current resuscitation and trauma guidelines
- Learning management system for notes, videos and logbook forms

11.4 Quality assurance

- Fellow feedback on every unit and posting; guide feedback to the committee at mid-point and at the end
- Annual curriculum review by the Fellowship Committee, with updating to current guidelines
- Grievance redressal through the Fellowship Coordinator; escalation to the Dean
- Ethics: informed consent and confidentiality in all patient contact; supervised practice only within the scope of a registered nurse

Suggested References

1. Brunner and Suddarth's Textbook of Medical-Surgical Nursing – Wolters Kluwer.

2. Lewis's Medical-Surgical Nursing: Assessment and Management of Clinical Problems – Elsevier.

3. Marino's The ICU Book – Wolters Kluwer.

4. Advanced Cardiovascular Life Support (ACLS) Provider Manual – American Heart Association, using the current applicable edition and guidelines.
5. Basic Life Support (BLS) Provider Manual – American Heart Association, using the current applicable edition and guidelines.
6. The ICU Book: Principles and Practice of Intensive Care – recommended for critical care physiology, monitoring and management.

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

B.2 Posting summary

Posting	Dates	Hours completed	Competencies signed off	Guide signature
Medical Intensive Care Unit (MICU)				
Surgical Intensive Care Unit (SICU)				
Neurosurgical Intensive Care Unit (Neuro ICU)				
Emergency and Trauma Care Unit				
Coronary Care Unit (CCU)				

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 Critical Care Nursing

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