

1. Course Title

Burns Critical Care for Nurses (BU-RN).

2. Introduction

Burns Critical Care for Nurses course, a specialized program designed to equip nursing professionals with the essential knowledge and skills required to care for critically ill burn patients. This course focuses on the advanced principles of burn management, including assessment, fluid resuscitation, wound care, infection prevention, pain control, and psychological support. Nurses will gain a deeper understanding of the complex needs of burn patients throughout the critical care journey, from initial emergency care to rehabilitation. By the end of this course, participants will be prepared to deliver safe, effective, and compassionate care that promotes healing and improves patient outcomes.

3. Purpose

The purpose of the *Burns Critical Care for Nurses* course is to enhance the clinical competence and confidence of nurses in providing specialized, high-quality care for patients with severe burns. This course aims to develop nurses' abilities in early recognition, accurate assessment, and effective management of burn injuries, with a focus on life-saving interventions, minimizing complications, and supporting physical and emotional recovery. It also seeks to promote evidence-based practices, improve patient safety, and strengthen teamwork in critical care settings. Ultimately, the course prepares nurses to play a vital role in improving survival rates and quality of life for burn patients.

4. Objective

1. Promote nursing understanding of burn pathophysiology and its effects on major body systems during the critical care phase.
2. Perform accurate nursing assessment and classification of burn injuries, including depth, extent (TBSA), and severity.
3. Apply evidence-based strategies for fluid resuscitation and hemodynamic stabilization in burn patients.
4. Provide effective wound care and infection prevention techniques specific to burn injuries for nurses.
5. Enhance nursing pain management and providing appropriate sedation and comfort measures for critically ill burn patients.
6. Recognize and manage common complications of burn injuries, including airway compromise, shock, and organ dysfunction for nurses.
7. Support nurses in the role of emotional, psychological, and psychosocial needs of burn patients and their families throughout the critical care process.
8. Collaborate effectively within the multidisciplinary burn care team to ensure holistic and continuous nursing patient care.
9. Promote patient safety and apply ethical, legal, and culturally sensitive principles in burn critical care nursing practice.

5. Target Audience

The Burns Critical Care for Nurses course is specifically designed for:

- Staff nurses working in critical care, intensive care units (ICUs), emergency departments, or burn units.
- Nurses specializing in trauma care or surgical care who may encounter burn patients.

- Nursing staff assigned to burn centers or specialized burn care teams.
- Nurse educators and clinical nurse specialists seeking advanced knowledge in burn critical care.
- Nurses involved in disaster response teams or emergency preparedness units dealing with mass burn casualties.

6. Course content

- a. Understanding Burn Pathophysiology: Systemic Responses and Complications.
- b. Burn Assessment and Classification: Depth, Extent, and Severity.
- c. Fluid Resuscitation and Hemodynamic Management in Burn Patients.
- d. Wound Care Principles and Infection Prevention in Burn Injuries.
- e. Pain Management and Sedation Strategies for Critically Ill Burn Patients.
- f. Airway Management and Complication Prevention in Burn Care.
- g. Psychosocial and Emotional Support for Burn Patients and Families.
- h. Interdisciplinary Collaboration in Burn Critical Care: Roles and Communication.
- i. Patient Safety, Ethics, and Cultural Sensitivity in Burn Nursing Practice.
- j. Escharotomy and Fasciotomy: Indications, Techniques, and Nursing Care.
- k. Rehabilitation and Long-Term Recovery in Burn Patients.
- l. Nutritional Needs and Feeding Strategies in Burn Patients.

Session's objectives:

Lectures	
Title	Learning Objectives
Course introduction	Discussing the course content and objectives.
1. Understanding Burn Pathophysiology: Systemic Responses and Complications	<ol style="list-style-type: none"> 1. Describe the pathophysiological changes that occur after a burn injury. 2. Identify the systemic responses affecting major organs in burn patients. 3. Explain the phases of burn shock and the inflammatory cascade. 4. Recognize the impact of burns on fluid and electrolyte balance. 5. Analyze how burn injuries can lead to multi-organ dysfunction. 6. Case scenario.
2. Burn Assessment and Classification: Depth, Extent, and Severity	<ol style="list-style-type: none"> 1. Differentiate between the various burn depth categories (superficial, partial-thickness, full-thickness). 2. Accurately calculate Total Body Surface Area (TBSA) using assessment tools (e.g., Rule of Nines, Lund-Browder chart). 3. Identify the severity levels of burns and their implications for treatment. 4. Perform a comprehensive initial assessment of burn injuries. 5. Document burn assessments effectively according to clinical guidelines. 6. Case scenario.

3. Fluid Resuscitation and Hemodynamic Management in Burn Patients	<ol style="list-style-type: none"> 1. Explain the principles of fluid resuscitation in burn patients. 2. Apply the Parkland formula and other resuscitation protocols correctly. 3. Monitor fluid balance, urine output, and vital signs to assess response. 4. Recognize signs of fluid overload and under-resuscitation. 5. Collaborate with the care team to adjust fluid therapy as needed. 6. Case scenario.
4. Wound Care Principles and Infection Prevention in Burn Injuries	<ol style="list-style-type: none"> 1. Describe the stages of wound healing in burn patients. 2. Apply aseptic techniques during wound dressing and care. 3. Identify common infections and organisms in burn wounds. 4. Select appropriate topical agents and dressings based on wound characteristics. 5. Educate patients and families on wound care and infection signs. 6. Case scenario.
5. Pain Management and Sedation Strategies for Critically Ill Burn Patients	<ol style="list-style-type: none"> 1. Assess pain levels in burn patients using validated tools. 2. Differentiate between types of pain. 3. Select pharmacologic options for pain control, including opioids and adjuncts. 4. Implement non-pharmacological interventions to relieve pain and anxiety. 5. Monitor and manage side effects of pain medications and sedation. 6. Case scenario.
6. Airway Management and Complication Prevention in Burn Care	<ol style="list-style-type: none"> 1. Identify burn patients at risk for airway compromise. 2. Describe the steps for emergency airway management, including intubation. 3. Monitor for signs of respiratory distress and inhalation injury. 4. Prevent and manage complications such as pneumonia or ARDS. 5. Assist in respiratory therapy interventions, including oxygen therapy and ventilator care. 6. Case scenario.
7. Psychosocial and Emotional Support for Burn Patients and Families	<ol style="list-style-type: none"> 1. Recognize the emotional and psychological effects of burn injuries. 2. Provide empathetic communication and emotional support to patients. 3. Assist patients and families in coping with body image changes and trauma. 4. Facilitate referrals to mental health professionals or support groups. 5. Support long-term psychological recovery and reintegration into daily life. 6. Case scenario.

8. Interdisciplinary Collaboration in Burn Critical Care: Roles and Communication	<ol style="list-style-type: none"> 1. Describe the roles of each member in the burn care multidisciplinary team. 2. Communicate effectively during care coordination and patient handoffs. 3. Participate in multidisciplinary rounds and treatment planning. 4. Collaborate with rehabilitation specialists for patient recovery. 5. Advocate for patient-centered care through teamwork and collaboration. 6. Case scenario.
9. Patient Safety, Ethics, and Cultural Sensitivity in Burn Nursing Practice	<ol style="list-style-type: none"> 1. Identify ethical issues commonly encountered in burn critical care. 2. Apply patient safety protocols to prevent errors and complications. 3. Incorporate culturally sensitive care practices in patient interactions. 4. Respect patient autonomy and confidentiality in decision-making. 5. Promote informed consent and shared decision-making processes. 6. Case scenario.
10. Escharotomy and Fasciotomy: Indications, Techniques, and Nursing Care	<ol style="list-style-type: none"> 1. Explain the indications for escharotomy and fasciotomy in burn care. 2. Recognize signs of compartment syndrome and circulatory compromise. 3. Assist the healthcare team during escharotomy and fasciotomy procedures. 4. Monitor patients for post-procedure complications such as bleeding or infection. 5. Provide wound care and pain management following surgical interventions. 6. Case scenario.
11. Rehabilitation and Long-Term Recovery in Burn Patients	<ol style="list-style-type: none"> 1. Describe the goals and phases of rehabilitation for burn patients. 2. Assist patients in regaining physical function through mobility exercises and physical therapy. 3. Support scar management techniques, including pressure garments and splinting. 4. Educate patients and families on self-care, wound care, and home rehabilitation strategies. 5. Collaborate with rehabilitation specialists to develop individualized long-term care plans. 6. Case scenario.
12. Nutritional Needs and Feeding Strategies in Burn Patients	<ol style="list-style-type: none"> 1. Explain the metabolic changes and increased nutritional demands following burn injuries. 2. Identify caloric and protein requirements based on burn severity and patient condition.

	<ol style="list-style-type: none"> 3. Describe methods of nutritional support, including enteral and parenteral feeding. 4. Monitor nutritional status, including laboratory markers and weight trends. 5. Case scenario.
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7. Course Duration

A full two-day course is recommended, with a balance between theoretical knowledge and scenario-based practice simulation.

8. Course Instructors

The course will be led by qualified healthcare professionals with expertise in burns, critical care medicine, trauma, and rehabilitation.

10. Course Completion

Upon successful completion of the course, participants will receive a certificate of completion.

11. Conclusion

The Burns Critical Care for Nurses course is designed to empower nurses with the specialized knowledge and skills necessary to provide comprehensive, high-quality care for burn patients throughout the critical care continuum. Through in-depth lectures and targeted objectives, nurses will gain a solid understanding of burn pathophysiology, assessment, resuscitation, wound care, pain management, airway protection, psychosocial support, and surgical interventions such as escharotomy and fasciotomy. Additionally, the course emphasizes the importance of interdisciplinary collaboration, patient safety, ethical practice, and culturally sensitive care.

By completing this course, nurses will be better prepared to address both the immediate and long-term needs of burn patients, promoting optimal recovery, reducing complications, and improving quality of life. Ultimately, this course fosters confident, competent, and compassionate nursing care within the critical care environment.

12. Course Structure

The course will be as follows:

- The first day course will include theoretical scenario sessions.
- The second day will encompass the case based scenarios discussion sessions.
- The suggested number of learners for each course is 30 participants.

Day 1—Lectures		
Time	Title	
0800-0810	Welcome and introduction of the course	Eman Alanazi
0810-0900	Understanding Burn Pathophysiology: Systemic Responses and Complications	Dr. Abdulaziz Alhujairy
0900-1000	Burn Assessment and Classification: Depth, Extent, and Severity	Dr. Feras Alshomer
1000-1030	Coffee Break	
1030-1120	Airway Management and Complication Prevention in Burn Care	Dr. Abdulrahman Alrowaily
1120-1220	Fluid Resuscitation and Hemodynamic Management in Burn Patients	Dr. Hussain Mamdouh
1220-1300	Lunch Break	
1300-1400	Wound Care Principles and Infection Prevention in Burn Injuries	Noemi Falcasantos
1400-1500	Pain Management and Sedation Strategies for Critically Ill Burn Patients	Aljawharah Alamri
1500-1530	Psychosocial and Emotional Support for Burn Patients and Families	Kenneth Francisco
1530-1540	Closing of day 1	Eman Alanazi

Day 2 – Lectures		
Time	Title	
0800-0810	Introduction to day 2	Eman Alanazi
0810-0900	Rehabilitation and Long-Term Recovery in Burn Patients	Shaima Khan
0900-1000	Escharotomy and Fasciotomy: Indications, Techniques, and Nursing Care	Dr. Asma Bin Mahmoud
1000-1030	Coffee Break	
1030-1120	Nutritional Needs and Feeding Strategies in Burn Patients	Alya Aljuhani
1120-1200	Patient Safety, Ethics, and Cultural Sensitivity in Burn Nursing Practice	Aljawharah Alamri
1200-1300	Lunch break	
1300-1330	Interdisciplinary Collaboration in Burn Critical Care: Roles and Communication	Kenneth Francisco
1330-1500	Scenarios based cases activity discussion	Eman Alanazi
1500-1530	Closing of the course	Eman Alanazi

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