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Nursing Management of Patients with Emergency and Critical Conditions

Medical Surgical Nursing

Shock, sepsis, multiple organ dysfunction syndrome, respiratory failure, cardiac emergencies, poisoning, trauma, burns, emergency assessment and critical care nursing.

For educational purposes only.

CHAPTER 18 / MEDICAL-SURGICAL NURSING 18. Nursing Management of Patients with Emergency and Critical Conditions

1. ABCDE and triage

A: identify airway obstruction and protect cervical spine when indicated. B: assess respiratory effort, oxygenation and ventilation. C: assess pulse, perfusion, bleeding and obtain access as indicated. D: check consciousness, pupils and glucose. E: expose to identify injury while maintaining warmth/privacy. Treat life threats as found, call for help and reassess. Triage prioritizes urgency, not arrival order.

Shock

Definition and pathophysiology: Inadequate tissue perfusion; hypovolaemic (loss), distributive (sepsis/anaphylaxis), cardiogenic (pump failure), obstructive (e.g. tension pneumothorax).

Clinical features and investigations: Tachycardia, altered mentation, delayed refill, oliguria, hypotension (may be late); lactate and cause-specific evaluation.

Management and nursing care: Immediate help, oxygen/ventilatory support as needed, control bleeding, IV access and cause-specific resuscitation; fluids carefully in cardiogenic/obstructive shock, reassess perfusion and overload; prepare vasopressors as ordered.

Sepsis and septic shock

Definition and pathophysiology: Life-threatening organ dysfunction from dysregulated host response to infection; septic shock involves profound circulatory/metabolic abnormalities.

Clinical features and investigations: Suspected infection with new organ dysfunction; monitor BP, consciousness, respiratory rate, output, lactate and appropriate investigations.

NURSE'S CONTENT / MEDICAL-SURGICAL NURSING 41

B.SC. NURSING / CHAPTER-WISE STUDY NOTES

Management and nursing care: Activate sepsis pathway; timely antimicrobials based on likelihood/urgency, cultures if no harmful delay, source control, individualized crystalloid resuscitation and vasopressor support when required. Reassess frequently. Use current 2026 SSC/local guidance.

Multiple organ dysfunction syndrome (MODS)

Definition and pathophysiology: Progressive dysfunction of multiple organs after severe infection, trauma or other critical illness.

Clinical features and investigations: Respiratory failure, renal injury, coagulation disturbance, hypotension,

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altered consciousness.

Management and nursing care: Treat cause, organ support, monitor trends, prevention of infection and pressure injury, nutrition, communication and goal-of-care discussions.

Respiratory failure

Definition and pathophysiology: Failure of gas exchange or ventilation.

Clinical features and investigations: Hypoxaemia, hypercapnia, fatigue, altered mental status; ABG and assessment.

Management and nursing care: Airway support, individualized oxygen and ventilation, treat cause. Monitor response and avoid delaying intubation if failing non-invasive support.

Cardiac arrest and cardiac emergencies

Definition and pathophysiology: Loss of effective circulation; also unstable arrhythmia, ACS and acute pulmonary oedema.

Clinical features and investigations: Unresponsive and absent normal breathing; trained providers check pulse no longer than 10 seconds.

Management and nursing care: Activate emergency response, CPR 100-120/min, adult depth 5-6 cm, full recoil/minimize pauses; 30:2 without advanced airway; AED/defibrillator promptly as indicated. Follow certified BLS/ALS algorithms (AHA 2025).

Poisoning

Definition and pathophysiology: Toxic exposure by ingestion, inhalation, injection or skin contact.

Clinical features and investigations: Variable toxidromes; history, substance/time, glucose, ECG, organ tests; ensure staff safety.

Management and nursing care: ABCDE, poison-centre/specialist guidance, remove exposure safely, selected antidotes (e.g., naloxone for opioid respiratory depression). Do not induce vomiting. Monitor delayed toxicity and psychosocial risk.

Trauma and burns

Definition and pathophysiology: Physical injury with potential haemorrhage, airway damage or occult internal injury.

Clinical features and investigations: Mechanism, bleeding, deformity, neuro status, breathing and perfusion; trauma imaging as indicated.

Management and nursing care: Control major bleeding (direct pressure/tourniquet if indicated and trained), immobilize appropriately, prevent hypothermia, activate trauma team. Cool limited thermal burns with running water, avoid ice; major burns need specialist resuscitation.

NURSE'S CONTENT / MEDICAL-SURGICAL NURSING 42

B.SC. NURSING / CHAPTER-WISE STUDY NOTES

2. Critical care nursing

Continuous or appropriate monitoring, line/device infection prevention, ventilator care, sedation and delirium assessment, skin and VTE prevention, nutrition, early mobilization when safe and family communication. Track

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fluid balance and urine output. A change in trends can precede critical events. Document times, actions and response.

3. Important Examination Questions

Long Answer Questions

1. 1. Explain types of shock and emergency nursing management
2. 2. describe sepsis and MODS.

Short Answer Questions

1. 1. Write ABCDE
2. 2. state adult CPR principles
3. 3. explain initial poisoning care.

Very Short Answer Questions (with answers)

1. 1. What is AED? - Automated external defibrillator.
2. 2. Is hypotension always early in shock? - No.

4. Quick Revision

- Treat life threats immediately.
- Sepsis requires time-sensitive assessment.
- Reassess after every intervention.

5. Conclusion

Treat life threats immediately. Sepsis requires time-sensitive assessment. Reassess after every intervention.

Practice questions

Choose one best answer. The answer key and explanations follow the questions.

1. Tension pneumothorax is an example of which shock mechanism?

A. Hypovolaemic shock
B. Obstructive shock
C. Distributive shock
D. Cardiogenic shock

2. What defines sepsis?

A. Any fever without organ dysfunction
B. Any positive culture in an otherwise well person
C. Life-threatening organ dysfunction from a dysregulated host response to infection
D. All low blood-pressure episodes regardless of cause

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3. Which action should be avoided after a poisoning exposure?

A. Obtaining the substance and exposure-time history

B. Assessing airway, breathing and circulation

C. Seeking poison-centre or specialist guidance

D. Inducing vomiting

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Answer key and explanations

1. B - Obstructive shock

Tension pneumothorax obstructs circulation and is listed as a cause of obstructive shock.

2. C - Life-threatening organ dysfunction from a dysregulated host response to infection

Sepsis involves organ dysfunction caused by a dysregulated response to infection.

3. D - Inducing vomiting

Initial poisoning care uses ABCDE and specialist guidance; vomiting should not be induced.

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