SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: SHOCK

kCode No: NUR 411

Program: RN CRITICAL CARE NURSING PROGRAM

Semester:

Date: MARCH, 1989

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New: **Revision:**

APPROVED: **Chairperson**

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CDORSE DESCRIPTION;

The clinical syndrome of shock will be discussed including classifications, stages and compensatory mechanisms. Discussions will address the nursing care in the management and prevention of shock.

COURSE OBJECTIVES;

Part A - Pathophysiology

1. Describe the clinical syndrome of shock and its affects on metabolic and cellular activity.

2. Describe the etiology and pathophysiology of the major classifications of shock.

'art B^ - Nursing Care

3. Formulate an appropriate plan of nursing care for the patient in shock^.

METHOD OF EVALUATION;

Nursing Care Study (take home assignment)

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OBJECTIVES	CONTENT	LEARNING RESOURCES
Part A - Pathophysiology		
1. Explain normal cellular structure and metabolic activity.	- Cell structure - Aerobic energy production (Krebs cycle) - Anaerobic energy production - Na/K transport in cell - cell permeability	Any current anatomy and physiology text Grif-Alspach, Jo-Ann; Susan Williams, Core Curriculum for Critical Care Nursing^ W,B, Saunders Co,, Toronto, 1985
2• Describe nervous, hormonal and chemical feedback mechanisms in relation to body functions.	Nervous - sympathetic - parasympathetic - pressoreceptors/ baroreceptors Hormonal - ADH - Aldosterone - Renen-Angiotensin System Chemical - CO2 level ~ cardiac output	Hudak, Carolyn; Barbara Gallo and Thelma Lohr. Critical Care Nursing/ 4th ed,, J.B, Lippincott Co,, Philadelphia, 1986 Holloway, Nancy, Nursing the Critically 111 Adult, 3rd ed., Addison-Wesley Pub. Co,, Don Mills, 1988 Nurse Review Clinical Update' System. "Vascular Problems", Springhouse Pub, Co., Philadelphia, 1988
3. Define Shock		
4, Identify the major classifications of shock-	Hypovolemic Septic (Distributive Vasogenic) Anaphylactic (Distributive Vasogenic) Neurogenic (Distributive) Cardiogenic	"Caring for the Patient in Hypovolemic Shock", Nursing '84. March, 1984, p. 24-27 Deglin, Judith and Ken Walters, "Anaphylactic Shock: As Soon as You See I^ - Stop It", Sept. 1984, p. 6-8

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OBJECTIVES	CONTENT	LEARNING RESOURCES
Differentiate the patho^ physiological changes including cellular level) which occur with each classification of shock.	Cellular response Fluid compartment shifts: Starlings Law pressures i) plasma hydrostatic pressure ii) interstitial fluid hydrostatic pressure iii) plasma osmotic pressure iv) interstitial fluid osmotic pressure electrolytes (eg: Na/K pump)	Cohen, Michael, "Drug-induced Anaphylaxis", Nursing '85. February, 1985, p. 43 Sumner, Sara, "Septic Shock", Nursing '87. February, 1987, p. 33 Randall, Brendal, "Reacting to Anaphylaxis", Nursing '86. March, 1986, p. 34-40 Rice, Vee, "Shock Management: Part 1 - Fluid Volume Replacement", Critical Care Nursing, Nov-Dec. 1984, p. 69-82 "Master Care Plan - Helping the Patient in Shock", RN. July, 1985, p. 26-27 Taylor, Delores, "Anaphylaxis, Physiology, Signs & Symptoms", Nursing '84. June, 1984, p. 44-45
Describe the stages of shock.	Cell injury or the cell in shock early (compensatory), middle (progressive), late (refractory), MSOF (multi-system organ failure)	
7. Explain the related clinical manifestations for each stage of shock.	Common clinical manifestations specific clinical manifestations for each type of shock.	

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OBJECTIVES	CONTENT	LEARNING RESOURCES
8. Describe the medical management of the patient with shock.	Chemodynamic parameters Hemodynamic monitoring Pharmacology Alpha & Beta receptor stimulants: - vasopressors (beta adenergic stimulators, alpha adenergic stimulators) - steroids - vasodilators - antihistamines - bronchodilators - volume expanders	
5. Explain the potential complications of shock.	DIG ARDS	
10. Identify the appropriate diagnostic findings for the patient with shock.	acid/base balance electrolytes hematology urinalysis: (specific gravity, osmolality)	

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OBJECTIVES	CONTENT	LEARNING RESOURCES
Part B - Nursing Interventions		
1, Identify the appropriate nursing care for the patient in shock.	Assessment - high risk patients - precipitating factors - physical exam Diagnosis Planning - hemodynamic stability - airway - prevention of complications Implementation - blood volume expanders - ventilation - adequate circulation - urinary output - acid/base disturbances - management specific to: i) hypovolemic shock ii) septic shock iii) cardiogenic shock iv) anaphylactic shock	
2, Complete a nursing care study related to the patient in shock,	Evaluation	Case study Assignment