Hypovolemia

Definition	Loss of fluid
Clinical Manifestations	- Weight loss - Decreased turgor - Oliguria - Weak rapid pulse
Nx interventions	- Monitor Ins and Outs - Monitor vital signs and turgor - Note concentration of urine

Hypervolemia

Definition	Retention of water and Sodium
Clinical Manifestations	- Edema - Bounding pulse - Increased weight
Nx Interventions	- Measure ins and outs - Weigh patient daily - Monitor for edema - Listen for crackles in the lungs

Hypocalcemia

Definition	Decreased calcium Bed rest increases risk
Clinical Manifestations	- increased neural excitability - Seizures
Nx Interventions	- Initiate seizure precautions Increase calcium intake

Normal: 2.25-2.75 mmol/L

Hypercalcemia

Definition	Increased calcium

Hypercalcemia (cont)

Clinical Manifestations	- Dehydration - Constipation - Anorexia - Paralytic ileus - confusion - lethargy
Nx Interventions	- Drink 2.5-3.5L/day - Monitor cardiac function

Parental Fluid Therapy

Isotonic	NS (308), D5W (252), RL Cells do not shrink
Hypotonic	0.45% NaCl (154) Cause cells to swell
Hypertonic	5% Dextrose Cells will shrink

Glossary Terms

Anaphylactic shock	Biochemical mediators
Cardiogenic shock	Circulatory shock
Colloid cells	Crystalloids
Hypovolemic shock	multi-organ dysfunction syndrome
Neurogenic shock	Septic shock
Shock	Systemic inflammatory response syndrome
Gluconeog-enesis	Guided imagery
Hyperplasia	Hypoxia
Metaplasia	Negative feedback
Steady state	Stress
Adaptation	Adrenocorticotropic hormone (ACTH)
Antidiuretic hormone (ADH)	Catecholamines
Coping	Dysplasia
Glucocorticoids	Acidosis

Glossary Terms (cont)

Active transport	Alkalosis
Diffusion	Homeostasis
Hydrostatic pressure	Hypertonic solution
Hypotonic solution	Isotonic solution
Osmolality	Osmolarity
Osmosis	Tonicity

Hyponatremia

Definition	Low sodium
Clinical Manifestations	- Dry mucosa - Decreased turgor - Headache - Cramping
Nx Interventions	- Monitor ins and outs - Assess neurologic state - Increase salt intake

Normal: 13-145mmol/L

Hypernatremia

Definition	Increased sodium levels
Clinical Manifestations	- Dry swollen tongue - Hypotension - Pulmonary edema
Nx Interventions	- Monitor ins and outs - Gather medical history - Gather record of medications - Assess body temperature - Note behavioural changes

Metabolic Acidosis

Definition	Low pH r/t Increased H+ and decreased bicarb.
Clinical Manifestations	- Headache - Confusion - Drowsiness - Decreased respirations - Decreased cardiac output
Nx Interventions	-Administer bicarb. - Remove chloride source

Metabolic Alkalosis

Definition	High pH r/t Decreased H+ and increased bicarb
Clinical manifestations	Tingling in fingers and toes
Nx Interventions	- Correct underlying problem - Replace fluids with NS

Stress management: Nursing Interventions

- Promote healthy lifestyle
- Enhance coping strategies
- Teach relaxation techniques
- Progressive muscle relaxation
- Guided imagery
- Recommend support and therapy groups

General Shock Management

- Support respiratory system with oxygen or mechanical ventilation
- Fluid replacement
- Vasoactive medications
- Nutritional Support

Hypokalemia

Definition	Decreased potassium
Clinical Manifestations	-Fatigue - Leg cramps - Decreased bowel motility - Decreased blood pressure
Nx Interventions	- Increase potassium - ECG - monitor ins and outs - Monitor for early signs

Normal: 3.5-4.5 mmol/L

Hyperkalemia

Definition	Increased potassium Disturbs cardiac function
Nx Interventions	- Note dysrhythmias and muscle weakness - Restrict potassium intake

Respiratory Acidosis

Definition	pH <7.35 and PaCO2 > 42mmHg
Clinical Manifestations	- Increased respirations and BP - Mental cloudiness
Nx Interventions	Improve ventilation

Occurs chronically in COPD patients

Respiratory Alkalosis

Definition	pH >7.45 and PaCO2 < 38mmHg
Clinical Manifestations	- Lightheadedness - Decreased cerebral blood flow - Tachycardia
Nx Interventions	Treat underlying cause

Types of inflammation

Acute	Immediate, ~2 weeks, protective
Chronic	Injurious agent not removed, last months or years
Subacute	Active exudative phase (acute) and elements of repair (chronic)

Stages of Shock

1. Compensatory Stage

- BP normal
- Fight or flight
- Epi and Norepi released
- Blood to vital organs

Monitor tissue perfusion
Treat underlying disorder
Decrease anxiety
Promote safety

2. Progressive Stage

- Decrease BP

Detect early signs
Prevent complications
Promote rest and comfort
Support Family

3. Irreversible Stage

- Organ damage (liver and kidney)

Carry out prescribed treatment
Comfort and educate family