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SAULT COLLEGE NURSING ASSISTANT PROGRAMME

RNA 103

UNIT 6

FLUID & ELECTROLYTE BALANCE

September, 1993

OBJECTIVES

REFERENCES

1. Define the following terms:

- Anion
- Cation
- Dehydration
- Diaphoresis
- Edema
- Electrolytes
- Extracullular Fluid
- Fontanel
- Interstitial Fluid
- Intracellular Fluid
- Intravascular Fluid
- pH
- Acid
- Base
- Fluid Balance
- Diffusion
- Filtration
- Osmosis
- Osmotic Pressure
- Millequivalent
- Atom

2. Define "total body fluid"

3. Identify the distribution of body fluid:

- a) intracellular
- b) extracellular
 - interstitial
 - intravascular

4. Identify the sources of fluid intake

Kozier, Erb & Olivieri,
Chapter 40, p. 1035-1070,
1085-1086

Christensen, p. 524-538

Review Biology "Movement
Through Membranes" under
"The Cell"

Kozier, Erb & Olivieri,
p. 1036-1037

Christensen, p. 526-527

Kozier, Erb & Olivieri,
p. 1040-1041

Christensen, p. 526-527

OBJECTIVES

REFERENCES

5. Identify the routes of fluid loss
- Define the term "electrolytes" and recognize the chemical symbols for common electrolytes.
7. Briefly discuss the effect of alteration in fluid balance on electrolytes
8. Define the term "acid-base balance"
9. Define the term "pH" and recognize how pH is controlled in the body.
10. Identify responses through the lifespan which indicate adaptation in fluid and electrolyte balance
- a) thirst
 - b) normal intake thru the lifespan
 - c) normal output thru the lifespan
 - d) weight changes
 - e) distribution of fluid (edema in limbs or sacrum)
 - f) skin condition - tissue turgor, moistness
 - g) condition of mucous membrane and tongue
 - h) nutritional status - appetite
 - i) activity level/muscle tone
 - j) thought processes/senses, alert, orientated, confused
 - k) vital signs - temperature, blood pressure, respirations, pulse rate
- Kozier, Erb & Olivieri,
p. 1041-1042
- Christensen, p. 526-527
- Kozier, Erb & Olivieri,
p. 1038-1039,
1045-1050
- Christensen, p. 528-533
- Biology Notes
- Christensen, p. 533-537
- Kozier, Erb & Olivieri,
p. 1050-1052
- Christensen, p. 533
- Kozier, Erb & Olivieri,
p- 1038,
1040-1044,
1053-1054
- p- 1040-1041
- p- 1040-1041,
1054-1055
- p- 1038,
1041-1042
1054-1055
- p- 1054
- p- 1044
- p- 1053, 1057
- p- 1053, 1057
- p. 1057
- p. 1054

OBJECTIVES

REFERENCES

- | | |
|---|--|
| 1) condition of eyes - shiny,
dull, sunken, protruding | 1057 |
| m) fontanelles (sunken vs.
bulging) | |
| n) lab results: Serum | p. 1048-1050, |
| electrolytes (K , Na Cl~), | 1056 |
| hematocrit, | p. 1057-1058 |
| urine pH, specific gravity | p. 1058 |
| 11. Identify and discuss stimuli
that may influence fluid &
electrolyte balance | Kozier, Erb & Olivieri,
p. 1042-1043,
1053-1054,
1057 |
| a) alterations in nutritional
status | |
| - vomiting | |
| - inadequate or inability
to drink excessive H ₂ O | |
| - dieting | |
| - stomach suction | |
| - impaired metabolism | |
| b) general health status | |
| - malnutrition status | |
| - severe illness, surgery | |
| - pregnancy | |
| c) alteration in elimination | |
| - diarrhea | |
| - enemas | |
| d) percent of body fat | |
| e) alteration in skin integrity | |
| - burns | |
| - wounds | |
| - bleeding | |
| f) activity level | |
| g) fever, diaphoresis | |
| h) environment | |
| - external temperature &
humidity | |
| i) medication | |
| j) stress | |
| k) motivation, to follow
medical orders | |

OBJECTIVES

REFERENCES

- l) type of occupation
 - m) dependency on others
 - n) lifestyle
 - o) culture
 - p) availability of human and maternal resources
12. Recognize nursing diagnosis in fluid and electrolyte balance
- a) Adaptive fluid balance
 - b) Fluid volume deficit
 - c) Fluid volume excess
13. Contribute to goal statements that promote adaptive fluid & electrolyte balance
14. Identify and discuss nursing interventions used to promote or maintain adaptation in fluid and electrolytes.
- a) measurement and recording
 - intake
 - output
 - weight changes
 - fluid distribution
 - vital signs
 - b) strategies to promote oral intake, push fluid
 - c) strategies to restrict oral intake
 - d) role related to IV therapy (differentiate between RN and RNA role in relation to the basic standards.
- J15. Evaluate based on goal statements and modify plan of care if necessary.

Kozier, Erb & Olivieri,
p. 1060-1068,
1086

Kozier, Erb & Olivieri,
p. 1061

Kozier, Erb & Olivieri,
p. 1061,
1062-1070

Kozier, Erb & Olivieri,
p. 1062

p. 1063

p. 1062-1070

See "Standards of Practice", College of Nurses of Ontario

Kozier, Erb & Olivieri,
p. 1085

OBJECTIVES

REFERENCES

THE ABOVE BELONGS TO HEALTH
SCIENCES