

شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلو

بسم الله الرحمن الرحيم





MONA MAGHRABY



شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلو



شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



MONA MAGHRABY



شبكة المعلومات الجامعية التوثيق الإلكترونى والميكروفيلم

جامعة عين شمس التوثيق الإلكتروني والميكروفيلم قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات



يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار



MONA MAGHRABY

Factors Affecting Hydration Status among Critically III Patients

Thesis

Submitted for Partial Fulfillment of Master Degree in Nursing Sciences

Medical Surgical Nursing (Critical Care Nursing)

By

Samar Samir Afifi Mohammed

(B.Sc. Nursing)

Demonstrator in Medical Surgical Nursing Department
Faculty of Nursing

Modern University of Technology and Information

Faculty of Nursing
Ain Shams University
2021

Factors Affecting Hydration Status among Critically III Patients

Thesis

Submitted for Partial Fulfillment of Master Degree *in Nursing Sciences*

Medical Surgical Nursing (Critical Care Nursing)

Under Supervisions of

Prof. Dr. Ola Abd Elaty Ahmed

Professor of Medical Surgical Nursing Faculty of Nursing – Ain Shams University

Dr. Asmaa Abd Elrahman Abd Elrahman

Assistant Professor of Medical Surgical Nursing Faculty of Nursing – Ain Shams University

Dr. Shimaa Nabil Abd Elslam

Assistant Professor of Medical Surgical Nursing Faculty of Nursing – Ain Shams University

Faculty of Nursing
Ain Shams University
2021





Acknowledgement

First and foremost, I feel always indebted to Allah, the Most Kind and the Most Merciful for all his blessing and for giving me the will and strength for completion of this work.

I would like to express my deepest thanks, sincere appreciation and most gratitude to **Dr. Ola Abd Elaty,** Professor of Medical Surgical Nursing, Faculty of Nursing, Ain Shams University, for encouraging me to proceed with the subject I had chosen and for patiently putting up with my anxieties, for her precious advice, for her devoted time and effort, constructive guidance, assistance, fruitful criticism, and meticulous revision her influence on this work cannot be missed. I thank her for immense support and profound expertise. Without her careful supervision, this work could never be accomplished.

I am deeply grateful to **Dr. Asmaa Abd Elrahman,** Assistant Professor of Medical surgical Nursing, Faculty of Nursing, Ain Shams University, for her supervision, support, constructive guidance, assistance, fruitful criticism, her influence on this work cannot be missed. I thank her for immense support and profound expertise. I am deeply affected by her noble character, perfection, care and consideration. I would not have been able to start and reach perfection of this work without her support.

I am deeply grateful to **Dr. Shimaa Nabil,** Assistant Professor of Medical Surgical Nursing, Faculty of Nursing, Ain Shams University, for her constructive guidance, assistance, fruitful criticism, her influence on this work cannot be missed. I thank her for immense support and profound expertise. I am deeply affected by her noble character.

Last but not least, I am grateful to my Family, my husband and to all those who sincerely helped me to fulfill this work.

Samar Samir Afifi



Dedication

I would like to dedicate this work to my parents, my husband, my sisters, and my brother, for whom I will never find adequate wards to express my gratitude, also for my dear son who always makes my life full of happiness.

Samar Samir Afifi Mohammed

List of Contents

Subject	Page
List of tables	i
List of figures	v
List of Appendices	vi
List of Abbreviations	vii
Abstract	ix
Introduction	1
Aim of the Study	5
Review of literature	6
Subjects and methods	42
Results	56
Discussion	101
Conclusion	124
Recommendations	125
Summary	127
References	133
Appendices	I
Protocol	
Arabic summary	

LIST OF TABLES

Table	Title	Page
1.	Number and percentage distribution of the studied patients according to their demographic characteristics	57
2.	Distribution of the studied patients regarding past history	58
3.	Frequency and percentage distribution of the studied patients as regard to current diagnosis	59
4.	Distribution of the studied patients regarding vital signs	61
5.	Distribution of the studied patients regarding oxygenation and ventilation	62
6.	Distribution of the studied patients regarding to physical assessment of cardiovascular and respiratory systems	63
6 a.	Distribution of the studied patients regarding to physical assessment of integumentary system	65
6 b.	Distribution of the studied patients regarding to physical assessment of gastrointestinal system, nutritional status	66
6 c.	Distribution of the studied patients regarding to physical assessment of urinary system and edema	67

6 d.	Distribution of the studied patients regarding to physical assessment of general	
	signs of altered hydration status	69
7.	Mean and standard deviation regarding cumulative fluid balance and laboratory investigations of patients under study	70
8.	Frequency and percentage distribution of patients regarding factors affecting hydration status related to patients	72
9.	Distribution of nurses regarding to their educational level	74
10.	Frequency and percentage distribution of factors affecting hydration status related to environmental factors from nurses' point of view	75
11.	Frequency and percentage distribution of factors affecting hydration status related to nurses	76
12.	Frequency and percentage distribution of factors affecting hydration status related to physicians from nurses' point of view	77
13.	Frequency and percentage distribution of patients regarding the current hydration status	78
14.	Relation between patient's hydration status and demographic characteristics (n=100)	79
15.	Relation between patient's hydration status and previous history of medical disease	80

16.	Relation between patient's hydration status and vital signs	81
17.	Relation between patient's hydration status and consciousness level	82
18.	Relation between patient's hydration status and status of cardiovascular and respiratory systems	83
18 a.	Relation between patient's hydration status and status of gastrointestinal system	84
18 b.	Relation between patient's hydration status and status of urinary system	85
18 c.	Relation between patient's hydration status and status of integumentary system	86
19.	Relation between patient's hydration status and cumulative fluid balance	87
20.	Relation between patient's hydration status and lab investigations (complete blood count)	88
20. a	Relation between patient's hydration status and lab investigations (kidney function)	90
20. b	Relation between patient's hydration status and lab investigations (liver function and blood sugar test)	92
21.	Relation between patient's hydration status and patients related factors (current health disease)	94

21 a.	Relation between patient's hydration status and patients related factors (current health problems)	95
21 b.	Relation between patient's hydration status and patients related factors (current GIT problems)	96
21 c.	Relation between patient's hydration status and patients related factors (infection)	97
21 d.	Relation between patient's hydration status and body mass index of patients	98
21 e.	Relation between patient's hydration status and medications of patients	99

LIST OF FIGURES

Figure	Title	Page
1.	Distribution of intracellular and extracellular fluid compartments in	
	human body	8
2.	Pitting edema grading scale (4 levels)	41

LIST OF APPENDICES

No.	
1	Patient's Hydration Status Physical Assessment Tool
2	Factors Affecting Hydration Status of Critically Ill Patient Assessment Tool
3	Results of Jury