

Needs of Patients with Non-Hodgkin's Lymphoma Undergoing Chemotherapy

Thesis

Submitted for Partial Fulfillment of the
Requirement of Master Degree
(Medical Surgical Nursing)

**Presented By
Heba Abd-Elgawad Elfeky**

Demonstrator at Medical Surgical Nursing Department
Faculty of Nursing
Ain Shams University

**Faculty of Nursing
Ain Shams University
2014**

Needs of Patients with Non-Hodgkin's Lymphoma Undergoing Chemotherapy

Thesis

Submitted for Partial Fulfillment of the
Requirement of Master Degree
(Medical Surgical Nursing)

**Under supervision of
Prof. Dr. Magda Abd -Elaziz**

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

Dr. Naglaa El Said Mahdi

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

**Faculty of Nursing
Ain Shams University
2014**

Contents

Title	Page
♦ List of Abbreviations	I
♦ List of Tables	III
♦ List of Figures	V
♦ Abstract	VI
♦ Introduction and Aim of the study.....	1
♦ Review of the Literature	8
♦ Subjects and Methods	62
♦ Results	72
♦ Discussion	104
♦ Conclusion	125
♦ Recommendations	126
♦ Summary	124
♦ References	133
♦ Appendix I.....	—
♦ Appendix II.....	—
♦ Appendix III	—
♦ Appendix IV	—
♦ Arabic Summary	—

List of Abbreviations

HD	: Hodgkin's disease
cHD	: "classic" Hodgkin's disease
LPHD	: Lymphocyte-predominant Hodgkin's disease
BMT	: Bone marrow transplantation
ESR	: Erythrocyte sedimentation rate
EBV	: Epstein-Barr virus
HIV	: Human immunodeficiency virus
NHLs	: Non-Hodgkin's Lymphomas
HTLV-1	: Human T-lymphotropic virus type 1
CBC	: Complete Blood Count
CLL	: Chronic Lymphocytic Leukemia
DLBCL	: Diffuse Large B-Cell Lymphoma
NIH	: National Institutes of Health
AIDS	: Acquired immunodeficiency syndrome
PICC	: Peripherally inserted central catheter

List of Tables

Tab. No	Title	Page
Table (1):	Socio-demographic characteristics of the study patients (n=75).....	73
Table (2):	Percentage distribution of the study patients regarding housing condition.	75
Table (3):	Percentage distribution of present history regarding causes of hospital admission among the study patients	76
Table (4):	Percentage distribution of the present history regarding laboratory investigations among the study patients	77
Table (5):	Percentage distribution of the present history regarding chemotherapy among the study patients	79
Table (6):	Percentage distribution of the past and family history among the study patients	80
Table (7):	Percentage distribution of patients` knowledge regarding NHL disease and chemotherapy.	82
Table (8):	Percentage distribution of patients` knowledge regarding how to deal with side effects of chemotherapy (anemia, infection, bleeding and hair loss)	84

List of Tables (Cont.)

Tab. No	Title	Page
Table (9):	Percentage distribution of patients` knowledge regarding how to deal with side effects of chemotherapy (nausea & vomiting, constipation and diarrhea).....	86
Table (10):	Percentage distribution of patients` knowledge regarding how to deal with side effects of chemotherapy (loss of appetite & stomatitis)	88
Table (11):	Percentage distribution of patients` knowledge regarding how to deal with side effects of chemotherapy (skin changes, pain, nervous and urinary system problems)	89
Table (12):	Relation between total knowledge and sociodemographic characteristics among the study patients	91
Table (13):	Percentage distribution of patients` physical needs regarding respiratory and cardio-vascular associated problems)..	93
Table (14):	Percentage distribution of patients` physical needs regarding gastro-intestinal associated problems	94
Table (15):	Percentage distribution of patients` physical needs regarding genito-urinary associated problems	95

List of Tables (Cont.)

Tab. No	Title	Page
Table (16):	Percentage distribution of patients` physical needs regarding nervous and musculoskeletal associated problems	97
Table (17):	Percentage distribution of patients` physical needs regarding sensory organs associated problems (mouth, nose & sinuses, eye and ear).....	98
Table (18):	Percentage distribution of patients` physical needs regarding skin, lymph nodes, nipple & breast, rest & sleep, sexually associated problems)..	100
Table (19):	Percentage distribution of patients` physical needs..	102
Table (20):	Percentage distribution of patients` psychosocial needs.....	104

List of Figures

Tab. No	Title	Page
Figure (1):	Anatomy of the lymphatic system	9
Figure (2):	The malignant cell of Hodgkin's disease.....	14
Figure (3):	Percentage distribution of total patients' knowledge regarding non-Hodgkin's lymphoma disease, chemotherapy and how to deal with the side effects of chemotherapy (n=75)..	81

Abstract

Non-Hodgkin's lymphoma care fails to address the biopsychosocial problems associated with the illness. This failure can compromise the effectiveness of nursing care and thereby adversely affect the health of those patients, so the staff should meet these needs (biopsychosocial needs), to improve NHL patients` quality of life. ***The aim of this study*** was to assess the biopsychosocial needs of NHL patients undergoing chemotherapy. ***Design:*** A descriptive study. ***Setting:*** the study was conducted at the hematology unit in Ain Shams University Hospital. ***Study subjects:*** A purposive sample of adult patients (No=75).

Data collection tools: Demographic data sheet, Clinical data sheet and Interview questionnaire sheet. ***Conclusion:*** More than one half of the studied patients had unsatisfactory knowledge regarding disease and chemotherapy, While regarding physical problems, all the studied patients had anemia, loss of appetite, nausea, fatigue, stomatitis, hair loss and changes in the color of the skin. Also, as regard to psychological needs, the majority of them suffered from nervousness and psychological pressures. Furthermore, in relation to the social needs, the majority of the studied patients needed a special person to be near them when they need and a special person to share their joys and sorrows.

Recommendation: This study recommends the importance of supportive care services and psycho oncology clinics to meet NHL patients needs and consequently improve quality of life for those patients.

Keywords:

Non-Hodgkin's lymphoma, Biopsychosocial needs, Quality of life.



Acknowledgement

First and foremost, thanks to **Allah the Almighty** to whom I relate any success in achieving any work in my life.

I would like to express my very great appreciation to Professor **Prof. Dr. Magda Abd -Elaziz**, Professor of Medical Surgical Nursing, Faculty of Nursing -Ain Shams University, for her precious instructions, expert supervision and valuable comments during the course of this work.

I would like to offer my special thanks and deep appreciation to **Dr. Naglaa El Said Mahdi**, Assistant Professor of Medical Surgical Nursing, Faculty of Nursing -Ain Shams University, for her help and valuable advice throughout the performance of this work.

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قالوا

سببناك لا تعلم لنا
إلا ما علمتنا إنك أنت
العليم العظيم

صدق الله العظيم

سورة البقرة الآية: ٣٢

Introduction

Non-Hodgkin lymphoma is a disease in which cancer cells form in the lymphatic system and start to grow uncontrollably. There are several different types of lymphomas. Some involve a particular type of cell; these are grouped under the heading Hodgkin lymphoma. All other forms of lymphoma fall into the non-Hodgkin grouping. The different forms of non-Hodgkin lymphoma depend on such things as what the cells look like under a microscope (**Linton, 2011**).

Non- Hodgkin Lymphoma is estimated to be the tenth most common cancer worldwide. It comprises (41%) hematological cancers. Non- Hodgkin Lymphoma is the 11th most common cause of cancer death worldwide, and around 35% of deaths from haematological cancers. Non-Hodgkin lymphoma mortality rates are highest in parts of Africa and lowest in Eastern Asia (**The Leukaemia & Lymphoma Society, 2012**).

No one really knows what causes non-Hodgkin lymphoma. Some risk factors are identified for non-Hodgkin lymphoma. These include conditions that weaken the immune system, such as acquired immunodeficiency syndrome (AIDS), undergoing immune-suppressed

medications following organ transplants, and exposure to certain viruses, such as Epstein-Barr virus. Often, it never finds out exactly why a person gets lymphoma **(Basavanthappa, 2011)**.

The signs and symptoms of non-Hodgkin lymphoma vary from person to person depending on the type of lymphoma and where a tumor is located. Some people may feel stomach pain, constipation, and decreased appetite. Others may have trouble breathing, difficulty swallowing, and notice coughing, wheezing, or chest pain **(Prescher-Hughes & Alkhoudairy, 2007)**. Other symptoms may include painless swollen lymph nodes, fever, chills, or night sweats, itchy skin, weight loss despite eating normally, tiredness, bone or joint pain and recurring infections **(Horning, 2008)**.

The most common treatment for non-Hodgkin lymphoma is chemotherapy. Chemotherapy is medicine that kills or stops the growth of cancer cells. Patients are also sometimes treated with radiation therapy **(Yahalom & Straus, 2010)**. For some patients who are receiving very aggressive chemo or radiation treatments, doctors may perform bone marrow or stem cell transplants to replace cells damaged by the treatment **(Gupta, 2014)**. In a few

special situations doctors are using another treatment called immunotherapy or biological therapy (**Kuruvilla, 2008**).

Patients who are being treated with chemotherapy can expect certain side effects. Each patient is unique and experiences side effects differently. The severity of side effects and how long they last depends on the patient and type of medicine and treatment that a doctor prescribes (**Timby & Smith, 2009**).

The most common short-term side effects of chemotherapy are nausea and vomiting, but medicines given with chemotherapy can prevent this in most people. Another common side effect is a lowering of blood counts, which can put NHL patients at risk for infection or bleeding (**Baird & Bethel, 2011**).

Some NHL patients feel weak or dizzy after their treatments, or they run a fever. Others get sores in their mouths or suddenly don't feel much like eating. It's also common for all patients taking chemotherapy to lose some or all of their hair (**Carlson, 2009**).

Nurses should play a vital role in administration chemotherapy through: ensuring that NHL patients receive their treatment safely and competently, the risks of toxicity are minimized and education to ensure that (where toxicity

occurs, patients know exactly what to do and how to manage it) and providing support to help NHL patient cope with treatment and to minimize psychological morbidity from it (**Haugen & Galura, 2011**).

Non-Hodgkin's lymphoma patients should be informed of the nature of their disease, its course and prognosis. The nurse should independently provide the patient with accurate and factual information, correcting any misconceptions the patient may have acquired from other sources (**Gulanick & Myers, 2011**). As with non-Hodgkin's lymphoma disease, the nurse should alert the patient to potential chemotherapeutic side effects and how to deal with these side effects (**Perry & Potter, 2012**).

The biopsychosocial approach in health care emphasizes the importance of understanding human health and illness in their fullest context. It considers biological, psychological and social factors and their complex interactions in understanding health, illness and access to health care. This approach acknowledges that both the natural and social sciences are relevant to medical practice. In addition, psychological and social factors should be understood as significant to the non-Hodgkin lymphoma disease process, prognosis and ability to access care (**Bergeson, 2013**).