

# Assessing the Knowledge Regarding Common Side-Effects of Cancer Chemotherapy among Patients Attending NEIGRIHMS, Shillong with a View of Improving Current Practices - A Cross Sectional Study

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**Abstract:** *Background:* Cancer is becoming a major health care concern in India claiming the mortality rate 68% of the population. North Eastern states of India have the highest incidence of Cancer. The aim of study is to assess the knowledge regarding common side-effects of chemotherapy among patients undergoing chemotherapy in NEIGRIHMS and to determine the association between the knowledge regarding common side-effects with the selected demographic variables. *Methods:* A cross sectional study was conducted in Oncology Department of NEIGRIHMS. 96 participants were selected by using Non-Probability Consecutive Sampling Technique. *Results:* The study found that majority 51 (53.13%) of the study participants have good knowledge regarding the common side effects of chemotherapy whereas 45 (46.88%) have poor knowledge regarding common side effects of cancer chemotherapy. *Conclusion:* The study concludes that majority of the study participants have good knowledge regarding the common side effects of cancer chemotherapy.

**Keywords:** Assess, Knowledge, Side-Effects, Cancer, Chemotherapy

## 1. Introduction

Cancer occupies the second leading cause of death estimating about 9.6 million deaths worldwide. In Asia and in Africa cancer deaths were reported to be 57.3% and 7.3% respectively which are higher than the proportions of incident cases accounting 48.4% and 5.8%, respectively. (1)

Tobacco and pesticides related cancer have been reported highest in North East India. Mizoram accounts the highest of all types of cancer followed by East Khasi Hills district in Meghalaya has the second highest incidence of cancer, and also the highest proportion of tobacco-related cancers in the country estimating male 69.3%, female 43%. (2)

Cancer and its treatment are becoming major health care issues claiming the second leading cause of deaths estimating 12% of death worldwide out of which 12 million of individual are diagnosed with cancer annually worldwide. (3) Chemotherapy is considered as primary treatment for cancer alongside with other treatment modalities like radiation therapy, surgeries in managing and treating cancer which goes hands in hand with chemotherapy. (2)

Wahlang J B et al conducted a study to monitored any suspected cases of adverse drug reactions among 119 cancer patients during the course of chemotherapy for a period of 1 years (from November 2014-December 2015) The study concluded that out of 119 patients 106 patients were

recorded with adverse drug reaction which mainly includes constipation, vomiting, alopecia and haematological changes. (4)

Cheonyi N et al conducted a study over 60 cancer patients by using a structured knowledge questionnaires to assess the knowledge regarding ill effects of chemotherapy and its home management among patients receiving chemotherapy in multispecialty teaching hospital Uttarakhand and the study has concluded that majority of the cancer patients (63%) had satisfactory knowledge, 30% patients showed good level of knowledge and only 7% patients had poor level of knowledge regarding the ill effects of chemotherapy and its home management. (5)

Different types of treatment modalities are used for the treatment which includes surgery, radiation therapy, and chemotherapy. Cancer Chemotherapy plays a pivotal role in the treatment of cancer. Even though chemotherapy plays a major role in treating cancer, the chemotherapeutic agents causes side-effects among those who received the treatment. (6)

Side-effects of chemotherapy may occur during active treatment, or months or even years later. The most common side effects are pain, anemia, bleeding or clotting, bowel dysfunction, fatigue, alopecia, nausea, weight loss, immune suppression, changes in skin colour. (7)

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The main aim of study is to assess the knowledge regarding common side-effects of chemotherapy among patients undergoing chemotherapy in NEIGRIHMS and to determine the association between the knowledge regarding common side-effects with the selected demographic variables.

**2. Materials and Methods**

**Research Approach:** Quantitative Research Approach

**Research Design:** Descriptive Cross-sectional study design

**Demographic variables:** Age, sex, educational qualifications, occupations, religion and number of treatments undergone (chemotherapy cycles).

**Research Variables:** Knowledge regarding common side effects of chemotherapy among the patient receiving chemotherapy.

**Study Setting:** Oncology Department of NEIGRIHMS, Shillong Meghalaya.

**Population:** Patients whose age is 18 years and above, who are undergoing chemotherapy treatment in oncology department of NEIGRIHMS Shillong, Meghalaya.

**Sampling Technique:** Non-Probability consecutive sampling technique

**Sample Size:** 96

**Selection of tool:**

- 1) 6 items related to Demographic Variables.
- 2) 24 numbers of self-administered questionnaires of regarding common side-effects of chemotherapy.

**3. Data Analysis and Interpretation**

**Section I: Frequency and percentage distribution of demographic variables**

**Table 1:** Distribution of socio demographic variables of the participants, n=96

S No	Demographic characteristics	Frequency (f)	Percentage (%)
1	Age		
	a) 20-49years	64	66.66
	b) > 50 years	32	33.33
2	Sex		
	a) Male	46	47.91
	b) Female	50	52.08
3	Religion		
	a) Christian	56	58.33
	b) Hindu	27	28.13
	c) Muslim	12	12.5
	d) Others	1	1.05
4	Educational qualification		
	a) Up to high school	52	54.16
	b) Higher secondary and above	44	45.83
5	Number of chemotherapy treatment undergone		
	a) 2nd-10th cycles of chemotherapy	80	83.33
	b) 11 <sup>th</sup> cycle and above	16	16.66

Table 1 revealed that among the participants, majority 66.66% were in the age groups of 20-49 years, 52.08% were females, 58.33% were Christian, 54.16% completed their high school and 83.33% completed 2nd-10th cycle of treatment.

**Section II: Percentage distribution of participants level of knowledge regarding common side-effects of chemotherapy**

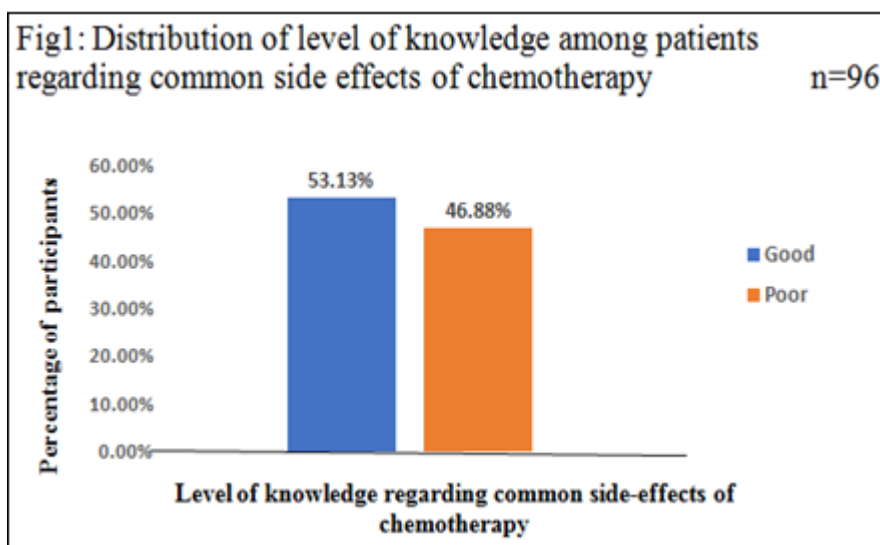


Figure 1 shows that 51 (53.13%) of the study participants have good knowledge regarding the common side effects of chemotherapy whereas 45 (46.88%) have poor knowledge regarding common side effects of chemotherapy

**Section III:** Association between the level of knowledge of participants with the selected demographic variables Table 2: Association between the level of knowledge of participants regarding common side-effects of chemotherapy with the selected demographic variables

S. no	Demographic characteristics	Good knowledge	Poor knowledge	df	Table value	Calculated value
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1	<b>Age</b>					
	a) 20-49 years	34	29	1	3.84	0.258
	b) >50 years	16	17			
2	<b>Sex</b>					
	a) Male	27	19	1	3.84	1.102
	b) Female	24	26			
3	<b>Educational qualification</b>					
	a) Up to high school	24	29	1	3.84	2.915
	b) Higher secondary and above	27	16			
4	<b>Number of chemotherapy cycle undergone</b>					
	a) 2 <sup>nd</sup> -10 <sup>th</sup> cycles of chemotherapy	43	37	1	3.84	0.0714
	b) 11th cycle and above	8	8			
5	<b>Religions</b>					
	a) Christian	2	27	1	3.84	0.097
	b) Non-Christian	22	18			

\*p value<0.05=Significant

Table 2 shows that there is no significant association between the level of knowledge and the selected demographic variables of the participants.

#### 4. Discussion

##### i) To assess the knowledge of the participants regarding common side-effects of chemotherapy

In this present study with regards to the knowledge of the participants, it was found that majority of the participants 51 (53.13%) have good knowledge regarding common side-effects of chemotherapy whereas 45 (46.88%) have poor knowledge regarding common side-effects of chemotherapy. The findings of the present study was supported by the study conducted by Mrs. Kumari M. et al (2013) which was reported that (63%) of the pre-test knowledge of the study participants had satisfactory knowledge regarding the ill effects of chemotherapy whereas (30%) had good knowledge and the remaining (7%) had poor knowledge regarding the ill effects of chemotherapy. (5)

##### ii) To find an association between the knowledge regarding common side-effects of chemotherapy with the selected demographic characteristics

The present study showed that there is no association between the knowledge levels of the participants with the selected demographic variables. The calculated chi square values of age (0.258), sex (1.102), educational qualification (2.915) number of chemotherapy cycles undergone (0.0714) and the religion (0.09) which is less than 0.05 which it is statistically non-significant. The similar study was conducted by Kaur R et al (2017) which has reported that there is no significant association between the selected demographic variables such as age, sex, diagnosis of the participants, educational qualification, occupation, number of chemotherapy cycle undergone. The study has also concluded that the demographic variables had no impact on the knowledge of the participants. (8)

#### 5. Conclusion

Based on the present study conducted among the patients undergoing chemotherapy attending oncology department at NEIGRIHMS Shillong it was revealed that the overall knowledge regarding common side-effects of chemotherapy was found to be 53.13% which is good. Also, there was no significant association between the knowledge with the

selected demographic characteristics. Since the majority of the participants experienced those common side effects of chemotherapy it is mandatory for the health care professionals to impart health education or to provide and information about those side-effects which is likely to occur after the treatment.

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