



Research Paper

## Assessment of the Attitude and Perceptions to Chemotherapy by Patients with Previous Exposure in Aba, South Eastern Nigeria.

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### ABSTRACT

*Cancer is a public health problem exposing patients with a wide range of physical, psychological, social and financial problems.*

*Chemotherapy is a useful modality of management of cancer. As useful or beneficial as it is, it has potential adverse effects. Poor attitude and negative perceptions have trailed chemotherapy (CTX).*

*The aim of this study was to assess the attitude and perception of CTX in men and women who had undergone one form of chemo treatment or the other.*

*The study was cross-sectional in design, involving the use of structured questionnaires written in English Language to men and women with previous chemo – exposure.*

*A total of 240 questionnaires were given out with only 160 completed and returned. The age range was 30 – 81 years with mean age of 65 years.*

*The 71 – 80 Age Group had the highest number of responders, 40 (25%), followed by the 61 – 70 age group with 35 responders (21.9%).*

*The literate level of responders was high with post primary level 68 (42.5%) and post-secondary 56 (35%).*

*Of the 160 responders, 112 (70%) showed prompt response to chemotherapy prescriptions.*

*Of the 48 responders with delayed response, poor finance 24 (50%) was the most common reason followed by fear of adverse effects 15 (31.3%).*

*Of the 160 responders, 132 (82.5%) had no previous knowledge of the potential adverse effects. Nausea and vomiting was the most common adverse effect 56.3%, followed by malaise 47.5%. 90% of the responders, after exposure were more willing to recommend CTX to others.*

*Attitude to chemotherapy is appreciably fair in Aba.*

**Keywords:**

*Attitude, Perceptions, Chemotherapy and Aba*

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## I. INTRODUCTION

Cancer is a leading global health challenge with increasing morbidity and mortality. Chemotherapy is a modality of management of most cancers which employs one or more anti-cancer drugs and maybe given with a curative intent but often given with palliative intent.

It is an aggressive form of Chemical Drug Therapy meant to destroy rapidly growing cells since cancer cells divide and grow faster than other normal cells.

It is often used in conjunction with other therapies such as:

- Radiation Therapy
- Hormonal Therapy
- Surgery.

It can be used on

- Primary Basis - where chemotherapy (CTX) is the only treatment given.
- Neo Adjuvant Basis – To shrink and downstage tumors before surgery
- Adjuvant Basis – To deal with lingering micro metastases post-surgery
- Can be used to relieve pains and other symptoms in the metastatic setting.
- It can also be given to prepare a patient with bone marrow diseases before bone marrow stem cell treatment.

Chemotherapy can be given through the following routes:

- Through intravenous injections
- Through additions into intravenous fluids before administration
- Implantation into the tumor
- As creams, especially in the treatment of skin cancers
- Intracavity administration or application such as thorax or abdomen.
- Can be taken by mouth as pills.

The type of chemotherapy given depends on the following:

- The type of cancer
- The location of the cancer
- The stage of the cancer
- Presence of comorbidities
- The state of the organs of the body
- The cancer treatment given in the past

The goals of chemotherapy are:

- Cure
- Control
- Palliation

Cure is aimed at primary cancers still confined to their organ of origin. Control is aimed at shrinking the tumor and or preventing further spread. It aims to elongate the patient's life with better quality of life.

Palliation is given when the cancer is at an advanced stage such that control is not possible. Palliative care is aimed at controlling the symptoms and giving better quality of life.

Chemotherapy is commonly given in regular intervals called cycles. A cycle may be a dose of one or more drugs given in one or many days followed by weeks of intervals to allow normal cells recover from harmful effects followed by the next cycle.

The mechanism of CTX is the use of intracellular poisons to inhibit mitosis (cell division) and to induce DNA damage.

This is different from agents causing blockade of extracellular signals (signal transduction) and therapies with specific molecular or genetic targets which inhibit growth promoting signals from endocrine hormones – estrogens and testosterone termed hormonal therapy and other inhibitors of growth signals associated with tyrosine kinase called targeted therapy.

The use of drugs whether CTX, Hormonal or Targeted Therapy is termed Systemic Therapy.

As useful, lifesaving and beneficial as it is, CTX has several adverse effects and harmful effects on normal tissues. The adverse effects depend on the:

- Overall health status of the patient
- The stage of the cancer
- The dose or amount of CTX given
- The presence of comorbidities

Some adverse effects may disappear shortly after exposure, while some others may remain for months, years or even remain permanent.

Whereas CTX can affect any system of the body but it has predilection for the following:

- Digestive system
- Reproductive system
- Hair follicles
- Bone marrow
- Mouth

Common adverse effects include:

- Hair loss
- Mouth sores
- Nausea and vomiting
- Loss of appetite
- Brain – memory gaps
- Anxiety and depression
- Sexual dysfunction
- Skin sensitivity
- Swollen hands and feet
- Poor muscle coordination and fatigue
- Low blood cell counts
- Weak heart

In view of these potential adverse effects, patients therefore need comprehensive counseling before and during the chemo – treatment.

## **II. METHODOLOGY**

The study was cross – sectional in design and carried out amongst adult males and females with previous chemotherapy exposure who attended outpatient clinics of health institutions within the metropolis.

The study involved the use of structured questionnaires written in English Language and given out by doctors to men and women with previous chemotherapy exposure.

Those with difficulty completing the questionnaires due to low literate level were aided by the doctors.

A total of 240 questionnaires were given out with 160 completed and returned.

The questionnaires contained demographics and questions on perception before chemotherapy exposure, prompt and delayed responses on prescription of chemotherapy, reasons for the delay, attitude after exposure.

Data from the completed questionnaires were collated, analysed and interpreted.

**INCLUSION CRITERIA**

Adult males and women with previous chemotherapy exposure.

**EXCLUSION CRITERIA**

Adult men and women who had no previous chemotherapy exposure were excluded from the study.

**III. RESULTS**

**TABLE 1: SHOWING DEMOGRAPHIC VARIABLES**

S/NO	VARIABLE	OUTCOME
1	MEAN AGE	65 years
2	AGE RANGE	30 – 81 years

**TABLE 2: SHOWING THE AGE GROUP CHARACTERISTICS OF THE PARTICIPANTS (n = 160)**

S/NO	AGE RANGE (IN YEARS)	NUMBER	MALES	FEMALES	PERCENTAGE
1	30 – 40	10	-	10	6.3%
2	41 – 50	30	-	30	18.8%
3	51 – 60	25	10	15	15.6%
4	61 – 70	35	28	7	21.9%
5	71 - 80	40	36	4	25%
6	81 - 90	20	20	-	12.5%
	TOTAL	160	94	66	100%

**TABLE 3: SHOWING EDUCATIONAL STATUS OF PARTICIPANTS (n = 160)**

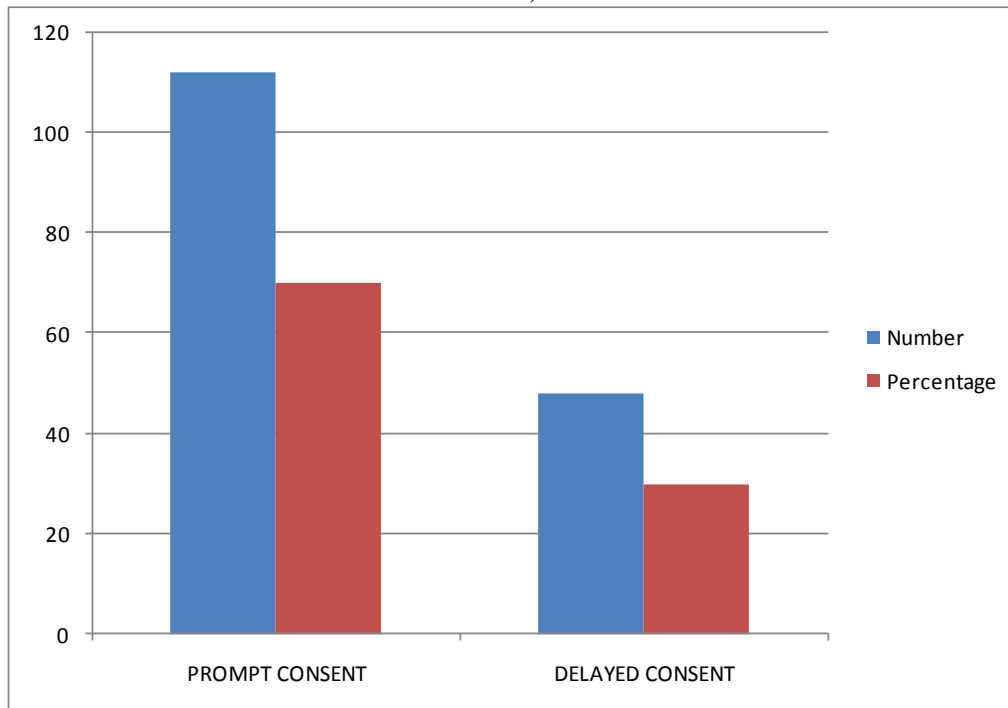
S/NO	EDUCATIONAL STATUS	NUMBER	PERCENTAGE
1	PRIMARY EDUCATION AND BELOW	36	22.5%
2	POST PRIMARY	68	42.5%
3	POST SECONDARY	56	35%
	TOTAL	160	100%

A high percentage of the participants were educated enough for the study.

**TABLE 4: SHOWING CONSENT TO ADMINISTRATION OF CHEMOTHERAPY (n = 160)**

S/NO	CONSENT	NUMBER	PERCENTAGE
1	PROMPT CONSENT	112	70%
2	DELAYED CONSENT	48	30%
	TOTAL	160	100%

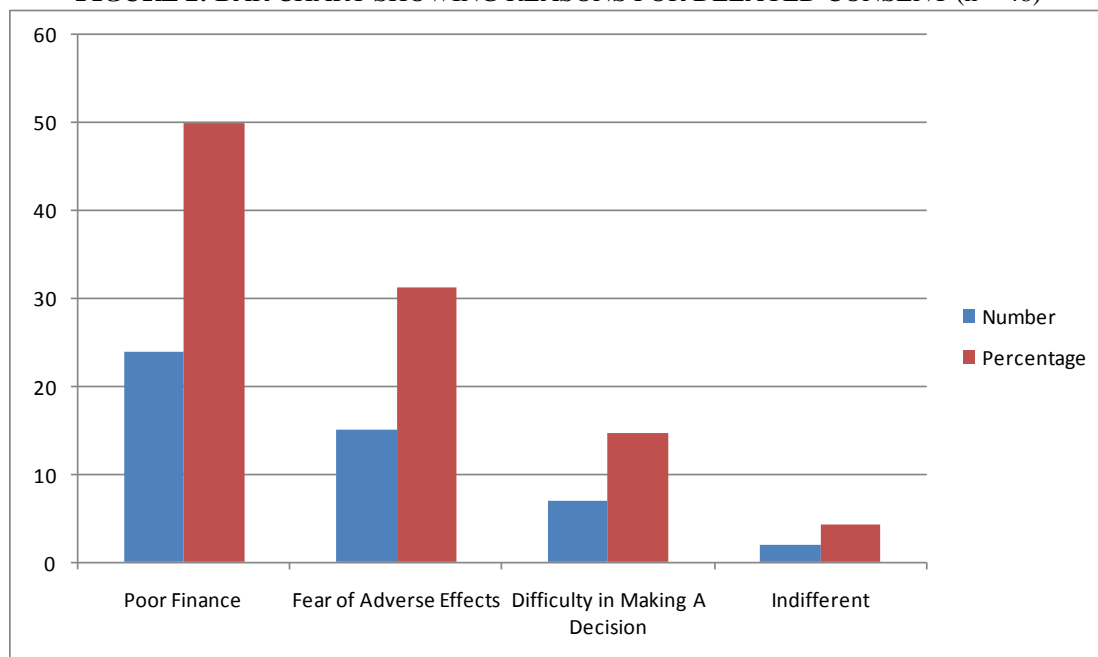
**FIGURE 1: BAR CHART SHOWING CONSENT TO ADMINISTRATION OF CHEMOTHERAPY (n = 160)**



**TABLE 5: SHOWING REASONS FOR DELAYED CONSENT (n = 48)**

S/NO	REASONS	NUMBER	PERCENTAGE
1	POOR FINANCE	24	50%
2	FEAR OF ADVERSE EFFECTS	15	31.3%
3	DIFFICULTY IN MAKING A DECISION	7	14.6%
4	INDIFFERENT	2	4.2%
	TOTAL	48	100%

**FIGURE 2: BAR CHART SHOWING REASONS FOR DELAYED CONSENT (n = 48)**

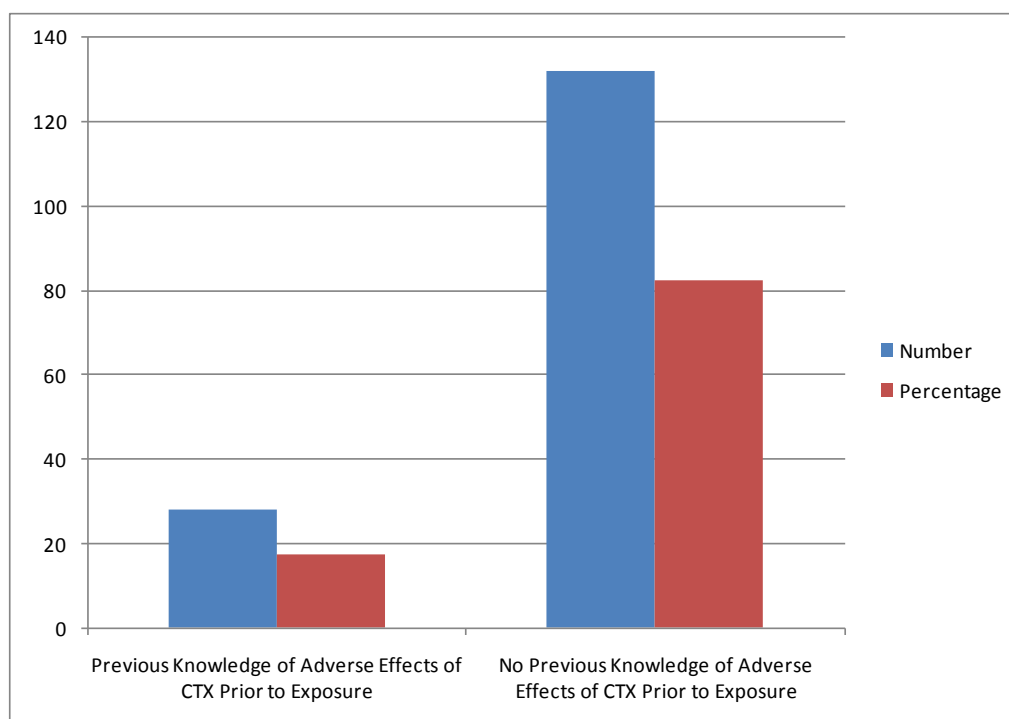


**TABLE 6: SHOWING THE PREVIOUS KNOWLEDGE OF THE ADVERSE EFFECTS OF CHEMOTHERAPY**

S/NO	KNOWLEDGE OF ADVERSE EFFECTS	NUMBER	PERCENTAGE
1	PREVIOUS KNOWLEDGE OF ADVERSE EFFECTS OF CHEMOTHERAPY PRIOR TO EXPOSURE	28	17.5%
2	NO PREVIOUS KNOWLEDGE OF ADVERSE EFFECTS OF CHEMOTHERAPY PRIOR TO EXPOSURE	132	82.5%
	TOTAL	160	100%

A great proportion of participants (82.5%) were unaware of the adverse effects of chemotherapy prior to exposure.

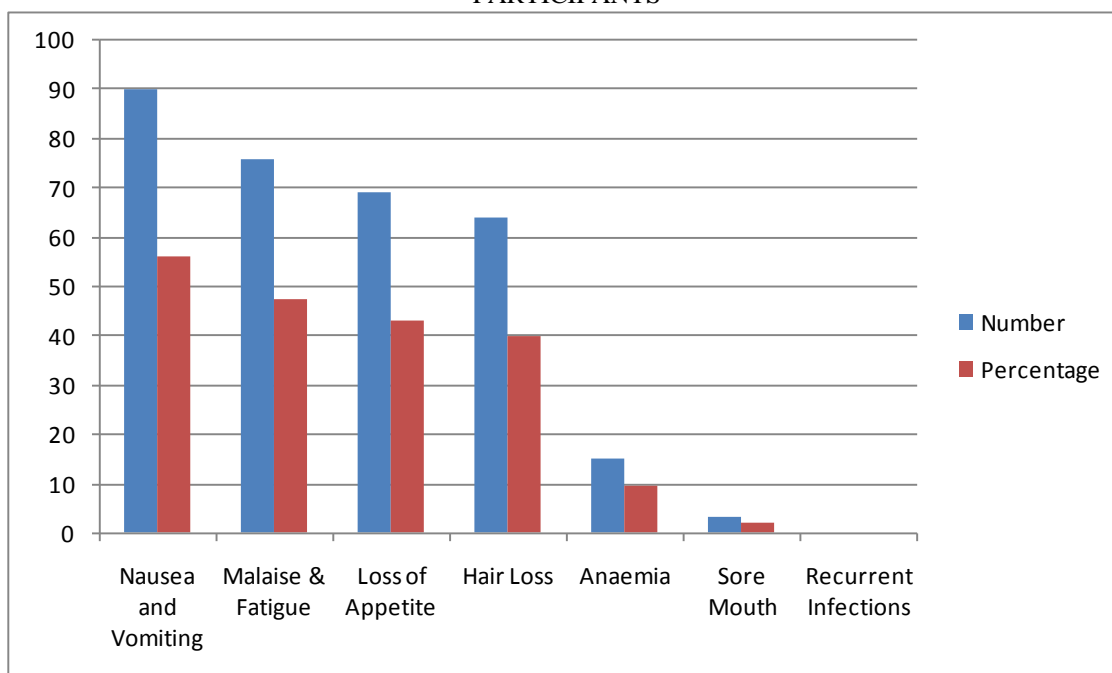
**FIGURE 3: BAR CHART SHOWING PREVIOUS KNOWLEDGE OF THE ADVERSE EFFECTS OF CHEMOTHERAPY**



**TABLE 7: SHOWING THE COMMON ADVERSE EFFECTS EXPERIENCED BY PARTICIPANTS**

S/NO	ADVERSE EFFECT	NUMBER	PERCENTAGE
1	NAUSEA AND VOMITING	90	56.3%
2	MALAISE / FATIGUE	76	17.5%
3	LOSS OF APPETITE	69	43.1%
4	HAIR LOSS	64	40%
5	ANAEMIA	15	9.4%
6	SORE MOUTH	3	1.9%
7	RECURRENT INFECTIONS	0	0%
	TOTAL	160	100%

**FIGURE 4: BAR CHART SHOWING THE COMMON ADVERSE EFFECTS EXPERIENCED BY PARTICIPANTS**

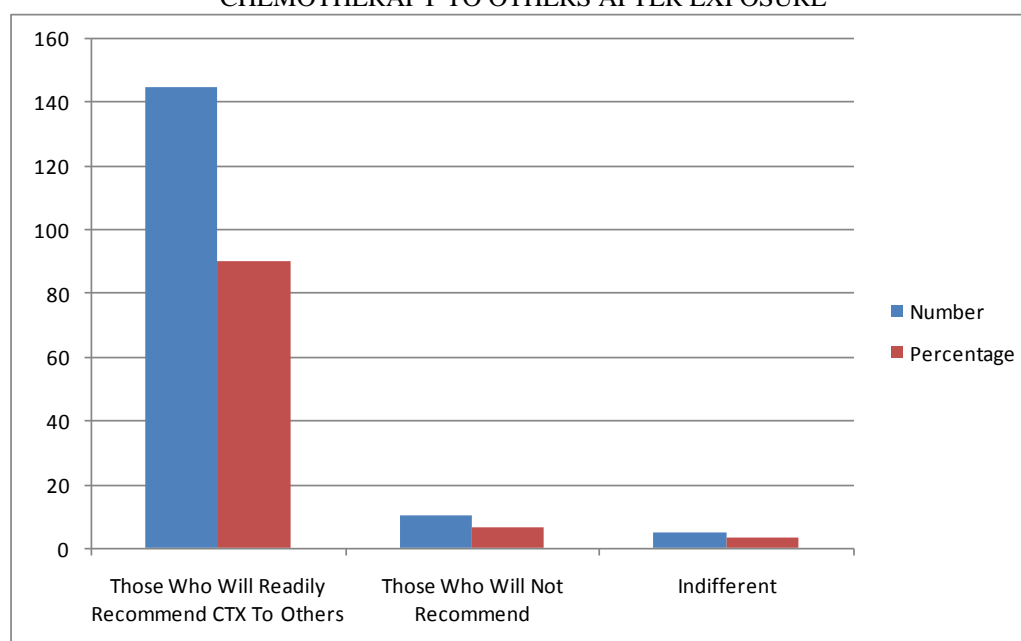


**TABLE 8: SHOWING THE DEGREE OF WILLINGNESS TO RECOMMEND CHEMOTHERAPY TO OTHERS AFTER EXPOSURE**

S/NO	WILLINGNESS TO RECOMMEND CHEMOTHERAPY TO OTHERS	NUMBER	PERCENTAGE
1	THOSE WHO WILL READILY RECOMMEND CTX TO OTHERS	145	90.1%
2	THOSE WHO WILL NOT RECOMMEND	10	6.3%
3	INDIFFERENT	5	3.1%
	TOTAL	160	100%

After exposure, a great proportion of participants were willing to recommend chemotherapy to other people.

**FIGURE 5: BAR CHART SHOWING THE DEGREE OF WILLINGNESS TO RECOMMEND CHEMOTHERAPY TO OTHERS AFTER EXPOSURE**



#### **IV. DISCUSSION**

Cancer is a leading cause of death with rapidly increasing global burden.

Chemotherapy remains a very effective modality of cancer management and with its benefits exist potential adverse effects.

Cancer is an important barrier to increasing life expectancy.

In our study, we found out that a large proportion of patients 112 (70%) gave prompt response on prescription of CTX but sadly, 82.5% of the responders had no previous knowledge of the adverse effects of CTX while only 17.5% had previous knowledge.

We also found that the major reason for delayed response to CTX was poor finance (50%) and that nausea and vomiting was the most common adverse effect seen by responders.

Moreso, more people (90%) were willing to recommend CTX to others after exposure.

In a study by Ransome Msughve Labe et al on Perceptions and Attitudes of Cancer Patients towards Chemotherapy Administration (2019), they found variations in perceptions and attitude of cancer patients towards treatment involving chemotherapy.

Evidence suggests that patients sometimes perceive the consequences of cancer treatment both clinical and non-clinical to be worse than the disease itself.

Regarding gender, women (56%) are more likely than men (31%) to agree that the side effects of treatment are often worse than the disease.

Researched evidence has shown that attitudes towards treatment do not become more negative with increasing age.

Clinical observation of patients suggests that the impact of treatment appear to be more negative amongst those older people who have not had cancer treatment than those who had actually received treatment.

40% of those with cancer who had received CTX agreeing with the statement that the side effects of treatment maybe worse than the cancer itself compared with 53% in the non cancer group.

In another study by Ahmed Nuru Muhammed et al on their study on Lived Experiences of Adult Cancer Patients Undergoing Chemotherapy Treatment at the University of Gendar Specialist Hospital, North West Ethiopia (2021), they found the following adverse effects – fatigue, nausea and vomiting and hair loss.

This was consistent in a study in Rwanda and Malaysia that reported a variety of adverse effects that included nausea and vomiting, fatigue, pains and hair loss.

These adverse effects had an impact on the patients' daily living and quality of life.

They stated that CTX despite its side effects creates a new balance towards future goals and achievement. The study showed that CTX treatment helped in improving their health condition and giving them hope for a new life.

The finding was consistent with study conducted in Iran that showed that patients who had completed chemotherapy had an improved health status compared to those without exposure.

Moreso, a study conducted in the United States that patients with cancer experienced a decrease in the physical, psychological, and social functioning which improved significantly after chemotherapy.

Munza Suhai et al in their work on Knowledge, Attitude and Practice Related to CTX Among Cancer Patients (2024) had the following findings. 54.6% of the 390 participants did not know about the CTX regimes and 56.9% did not know the names of the drugs while 41.8% did not know about the harmful effects on normal tissues.



They also had poor knowledge of the adverse effects of chemotherapy and had poor knowledge of the management of the side effects.

## V. CONCLUSION

A great proportion of patients respond to chemotherapy on prescription in Aba but few have knowledge of the potential adverse effects. Poor finance is a great restraint in response to chemo – prescription.

A great proportion of patients are more willing to recommend it to others after exposure.

## VI. RECOMMENDATIONS

- (1) A comprehensive counseling on the adverse effects is necessary before and during the chemo – treatment.
- (2) Governments should introduce subsidy regimes to enable the low income group benefit from chemotherapy treatment.

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