

# **Assessment Of The Knowledge, Attitude And Perceptions To Chemotherapy By Persons With No Previous Exposure In Aba, South Eastern Nigeria**

**Ibe U. Ibe**

*Consultant Urologist  
Department Of Surgery  
Abia State University Teaching Hospital, Aba  
Nigeria.*

**Obinna Chikezie**

*Medical Officer,  
Department Of Medical Services  
Ministry Of Health Umuahia,  
Nigeria.*

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## **Abstract**

*Cancer is a major health public challenge with physical, psychological, social and financial burdens. Chemotherapy is a very useful modality of treatment.*

*Despite its usefulness and efficacy, it has some adverse effects that have attracted negative public attitude and perceptions.*

*The aim of this study was to assess the knowledge, attitude and perceptions to chemotherapy (CTX) in persons who had had no previous exposure to CTX.*

*The study was cross-sectional in design involving the use of structure questionnaires written in English Language and given to persons, men and women with no previous exposure.*

*Total of 150 questionnaires were given out but only 105 were completed and returned.*

*The age range was 34-72 years with mean age of .....*

*The 71-80 year age group had highest number of 25 (23.8%), while the 31-40 age groups had the least number of 17 (16.2%).*

*The literate level was high with post-secondary persons 45 (42.9%) and secondary education 21 (20%), with persons having secondary education and above being 66 (62.9%).*

*87 participants had knowledge of chemotherapy (82.9%) while 18 (17.1%) were ignorant.*

*The health care providers were the most common source of information on CTX 37 (42.5%) followed by patients relatives 17 (19.4%).*

*58 (66.6%) knew about the adverse effects of Chemotherapy while 29 (33.3%) were ignorant of the adverse effects.*

*72 (82.7%) had poor attitude and perceptions towards CTX while only 15 (17.2%) had good attitude.*

*The most common for the poor attitude was the presence of the adverse effects 33 (45.8%).*

*65 (74.7%) were unwilling to recommend CTX to others.*

*The knowledge of chemotherapy was found to be fairly good but people's attitude and perception were found to be very poor especially where there was no previous exposure.*

**Keywords:** *Knowledge, 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 tumours 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 commodities
- 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 organs 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 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 blockage of extracellular signals (signal transduction) and therapies with specific molecular or genetic targets which inhibit growth promotion 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 co morbidities

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

This was a cross-sectional study done amongst persons (adult, males and females) with no previous exposure to chemotherapy who attended out-patient clinics of some busy health institutions within the metropolis.

The study involved the use of structured questionnaires written in English Language and given to the adult males and females.

Those who had difficulties completing the questionnaires due to poor literate level were aided by the attending Doctors.

A total of 150 questionnaires were given out with only 105 completed and returned.

The questionnaires contained questions on knowledge, attitude and perception of chemotherapy and reasons for such attitude and their willingness to recommend chemotherapy to others.

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

### Inclusion Criteria

Adult males and females with no previous exposure to chemotherapy.

### Exclusion Criteria

Adult males and females with previous chemotherapy exposure were excluded.

## III. Results

**150 questionnaires were given out but 105 were completed and returned**

**Table 1: Showing Demographic Variables**

S/No	Variable	Outcome
1	Mean Age	56
2	Age Range	34- 72

**Table 2- Showing Age Group Distribution Of The Participants**

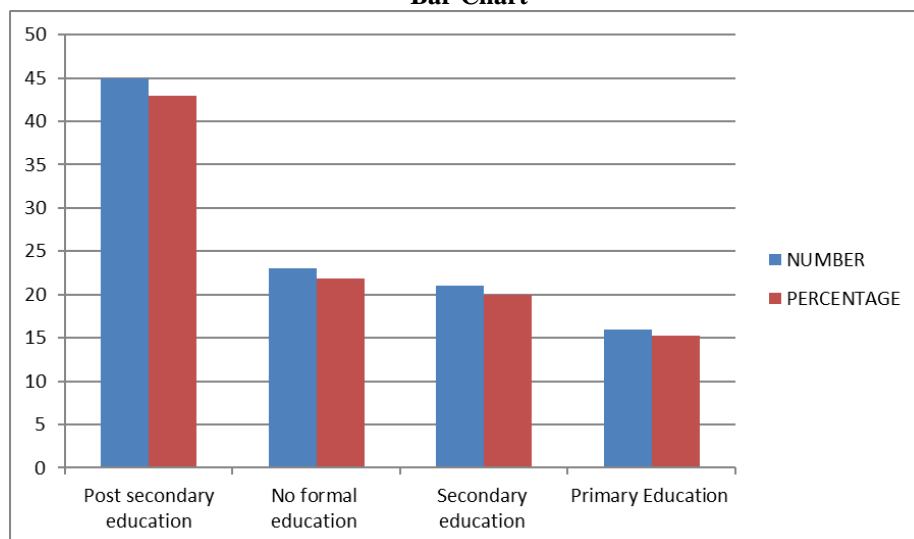
S/No	Age Group	Number	Percentage
1	20- 30	Nil	Nil
2	31- 40	23	21.9%
3	41- 50	23	21.9%
4	51- 60	18	17.1%
5	61-70	22	20.9%
6	71-80	25	23.8%
7	81-90	Nil	Nil
8	<b>Total</b>	<b>105</b>	<b>100%</b>

**Table 3- Showing The Educational Status Of The Participants N=105**

S/No	Educational Status	Number	Percentage
1	Post Secondary Education	45	42.9%
2	No Formal Education	23	21.9%
3	Secondary Education	21	20%
4	Primary Education	16	15.2%
	<b>Total</b>	<b>105</b>	<b>100%</b>

Both Secondary And Post-Secondary Education Totalled 66 (62.9%) Which Is Literate Enough.

**Fig 1  
Bar Chart**

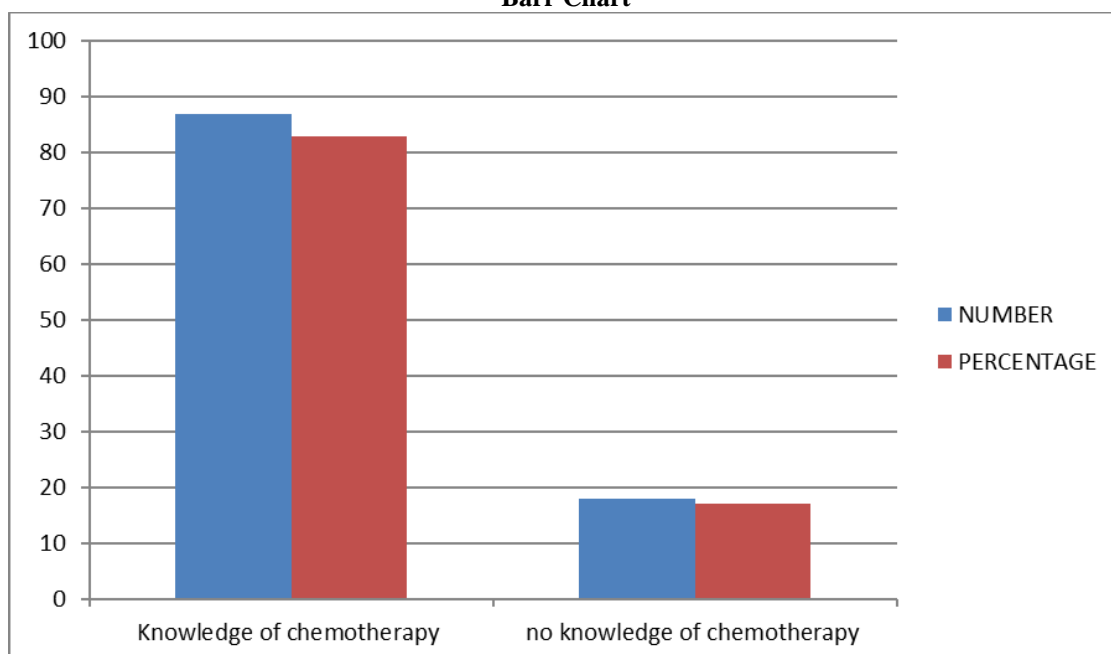


**Table 4: Showing Knowledge Of Chemotherapy Among The Participants**

S/No	Knowledge Of Chemotherapy	Number	Percentage
1	Knowledge Of Chemotherapy	87	82.9%
2	No Knowledge Of Chemotherapy	18	17.1%
3	<b>Total</b>	<b>105</b>	<b>100%</b>

Quite A Good Number 87 (82.9%) Had Known About Chemotherapy

**Fig II:  
Barr Chart**

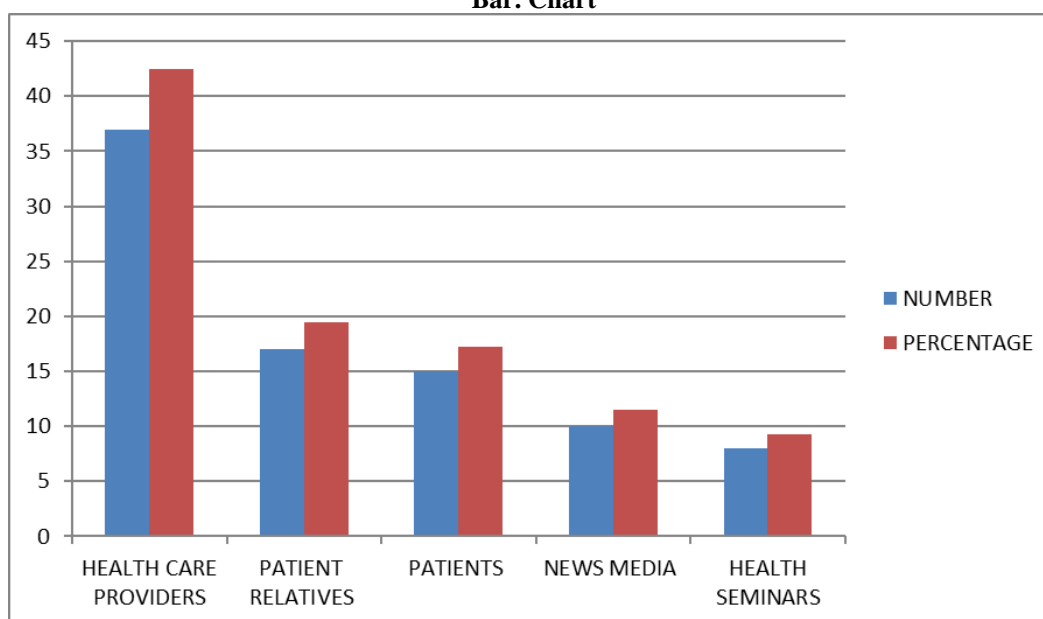


**Table 5- Showing The Source Of Knowledge Of Chemotherapy N=87**

S/No	Source Of Knowledge	Number	Percentage
1	Health Care Providers	37	42.5%
2	Patient Relatives	17	19.4%
3	Patients	15	17.2%
4	News Media	10	11.5%
5	Health Seminars	8	9.28
6	<b>Total</b>	<b>87</b>	<b>100%</b>

Health Care providers were the most common source of knowledge to those who had knowledge of chemotherapy.

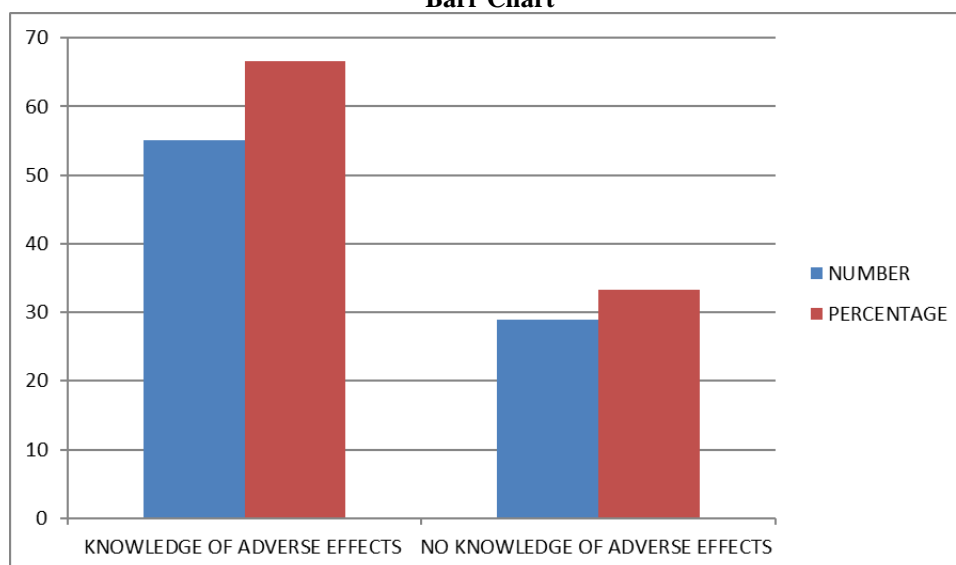
**Fig 3:  
Bar. Chart**



**Table 6: Showing Knowledge Of The Adverse Effects Of Chemotherapy N=87**

S/No	Adverse Effects Of Chemotherapy	Number	Percentage
1	Knowledge Of Adverse Effects	55	66.6%
2	No Knowledge Of Adverse Effects	29	33.3%
3	<b>Total</b>	<b>87</b>	<b>100%</b>

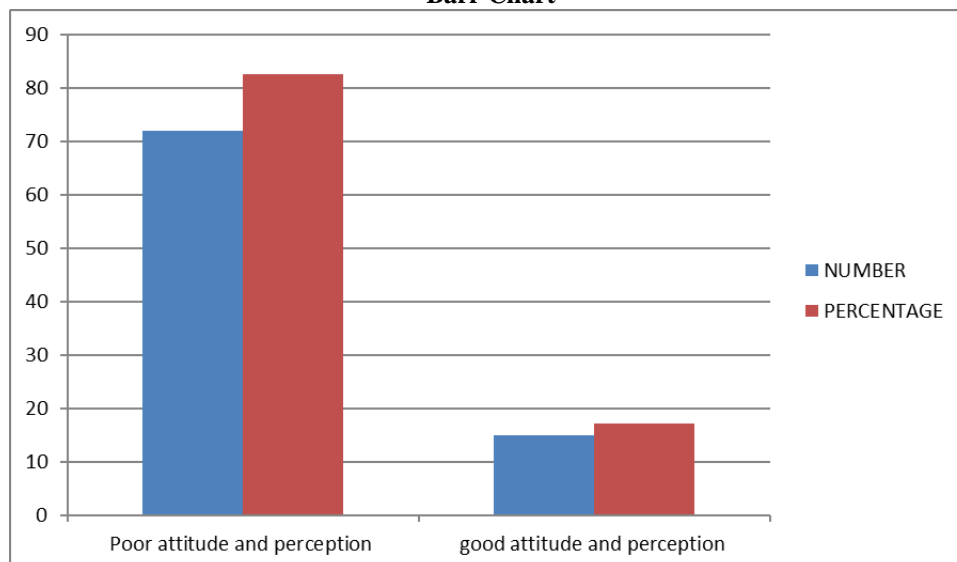
**Fig 4  
Barr Chart**



**Table 7- Showing The Attitude And Perception Of Chemotherapy N=87**

S/No	Attitude And Perception	Number	Percentage
1	Poor Attitude And Perception	72	82.7%
2	Good Attitude And Perception	15	17.2%
	<b>Total</b>	<b>87</b>	<b>100%</b>

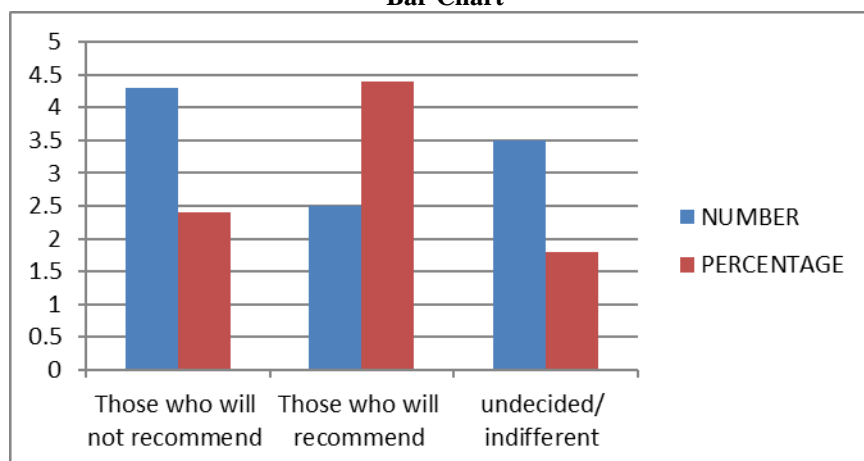
**Fig 5:  
Barr Chart**



**Table 8: Showing Reasons For Poor Attitude And Perception N=72**

S/No	Reasons For Poor Attitude	Number	Percentage
1	Adverse Effects	33	45.8%
2	Poor Prognosis (Suggesting That Death Occurs Soon After Ctx	14	19.4%
3	Poor Quality Of Life Before Death	13	18.1%
3	Previous Negative Information About Chemotherapy	9	12.5%
5	No Reason	3	4.2%
	<b>Total</b>	<b>72</b>	<b>100%</b>

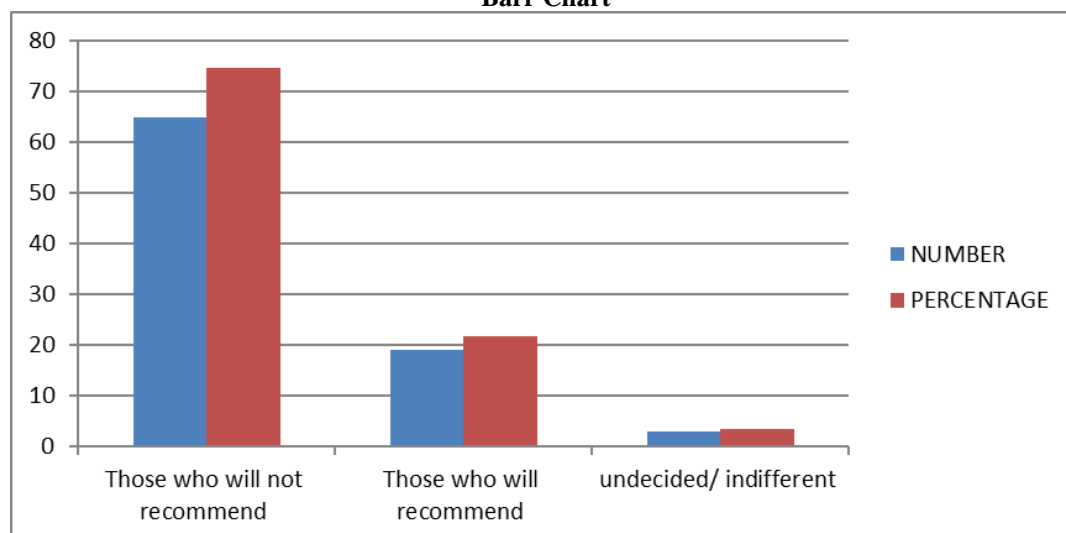
**Fig 6:  
Bar Chart**



**Table 9- Showing Willingness To Recommend Chemotherapy To Others N=87**

S/No	Willingness To Recommend Ctx	Number	Percentage
1	Those Who Will Not Recommend	65	74.7%
2	Those Who Will Recommend	19	21.8%
3	Undecided/ Indifferent	3	3.4%
	<b>Total</b>	<b>87</b>	<b>100%</b>

**Fig 7:**  
**Barr Chart**



#### IV. Discussion

Cancer is a global public health challenge with increasing morbidity and mortality. It exposes patients to a wide range of physical, psychological, social and financial burdens.

Cancer managements is complex and multi-faceted involving various modalities such as surgery, radiotherapy and chemotherapy.

Of these, chemotherapy remains a corner stone playing a critical role in both curative and palliative scenarios with its additional ability to deal with micro-metastases.

In our work, we had 72 participants (82.7%) having poor attitude and perceptions towards chemotherapy in persons with no previous CTX exposure.

We also had 65 persons (74.4%) unwilling to recommend CTX to others.

This is a contrast to our previous work on persons with previous exposure to CTX where we had 90.1% willing to recommend CTX to others. This may be due to the fact that those with no previous exposure have no experience to back up but rely solely on the adverse effects of CTX in addition to previous negative information they had been fed with.

Ahmed Nuru Mohammed et al, in their work on lived experiences of adult cancer patients undergoing chemotherapy treatment at University of Gondar specialized hospital, North West Ethiopia concluded that, the experiences, feelings and thoughts that patients have are the determining factors of diseased management.

Attitudes towards Cancer and treatment options are highly dependent due to the effects of ones beliefs, values, past experiences and cultural backgrounds.

Cancer patients who had negative illness attitudes had poor quality of life and experienced more stress, anxiety and depression.

Chemotherapy is a systemic drug therapy for cancer.

Despite its efficacy, patients may experience multi-dimensional problems including physical side effects, psychological distress and social problems.

All these can make it difficult for patients to cope with treatment.

It is these negative effects that shape public attitude and perceptions in addition to negative public attitude that gives it poor acceptance.

#### V. Conclusion

Among the non-exposed persons, knowledge of chemotherapy is fairly good. But attitude and perceptions remain very poor.

This poor attitude is worse in the non-exposed than those with previous exposure of chemotherapy.

The knowledge of its adverse effects and the previous negative information available to the public are grossly contributory.

#### VI. Recommendations

1. Aggressive and comprehensive health education is necessary.
2. Organization of health seminars in public places will be helpful.
3. Government should subsidize the cost of chemotherapy treatment to attract more people to receiving CTX.

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