

# Knowledge and Experience of Cancer Patients Receiving Chemotherapy in a Teaching Hospital in Nigeria

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## Abstract

### Background

: Cancer, a non communicable disease is an important disease associated with severe suffering before eventual death of the patient. The incidence is rising world wide and over 60% of new cases have been estimated to occur in less developed part of the world. In Nigeria 70% patients present in late stage 3 and 4, at which palliative Radiotherapy and chemotherapy are the main stay of treatment. This study was conducted to find out the level of knowledge of our patents about chemotherapy and to assess self reported experience of chemotherapy.

### Method:

Over a period of 10 months in 2011, 100 Consecutive cancer patient while receiving chemotherapy in the Radiotherapy clinic of the University College Hospital (UCH), Ibadan, were interviewed, using a set of questionnaires. These questionnaires consisted of sections A, addressing demographic variables, section B: knowledge of chemotherapy and section C addressing issues concerning their experiences on side effects of chemotherapy. The data was analyzed using SPSS software version 16.

Results: One hundred patients were interviewed in the study period. The highest frequency of patients are in the age group 50-59 years, with male/female ratio of approximately 1:3. Most of the patients had Kanofsky Performance Status (KPS) of 70-90%. The common malignancies among them were breast, cervix, and nasopharyngeal cancer. Thirty six of the patients had Anthracycline based chemotherapy while 64 had non -Anthracycline. 88% of the patients complied with treatment and completed prescribed 6 courses. A good number of participants (98%) had prior information about chemotherapy and possible side effects. 95% of these patients expressed satisfaction with the chemotherapy treatment received and coped with the side effects because they were well prepared, though the process was tedious.

### Conclusion

: The high level of knowledge and satisfaction among the patients may be attributed to the influence of the psycho-oncology clinic where these patients are counseled before commencement of treatment in the department. It is an avenue where most of their concerns are addressed.

## INTRODUCTION

Cancer a non-communicable disease is an important disease associated with severe suffering before eventual death of the patient. The incidence is rising worldwide and it has been estimated that over 60% of new cases will occur in the less developed part of the world. Unfortunately the developing worlds have access to less than 10% of recourses committed worldwide to cancer control<sup>1</sup>. (WHO 1986).

Most cancer patient in Nigeria present late and over 70% are in stages 3 &4, Campbell et al<sup>2</sup> in their review of 5000 cancer cases in Ibadan, reported that majority presented at

first visit in advanced stages while Ketiku et al<sup>3</sup> reported 66% late presentation in stages III and IV.

The late presentation has been attributed to lack of knowledge of cancer awareness, poverty, inadequate treatment facilities and inadequate cancer specialists to attend to the huge population of patients. For instance we have less than 30 radiation oncologists in Nigeria to a population of over 140 million people, and this scarcity cut across various specialties. There is no well-structured cancer control program and the unchecked activities of the traditional medicine and alternate medicine practitioners in Nigeria have further contributed to the late presentation. It

has been estimated some years ago by Solanke et al<sup>4</sup> that there would be about 500,000 new cases of cancer yearly in Nigeria.

With late presentation in Nigeria palliative Radiotherapy and Chemotherapy are the main stay of treatment<sup>5</sup>. Most commonly the term chemotherapy is used to refer to cancer killing drug. The drugs can be used as single agent or in combination, targeted to eliminating rapidly dividing cancer cell in the body. Chemotherapy can also be used in combination with other treatment modalities like surgery or radiotherapy as adjuvant or neo-adjuvant therapy.

Chemotherapy is used in oncology to prevent recurrences of disease or to achieve palliation in advanced disease, such as pain relief, symptom relief and tumor debulking to down stage advance diseases.

Since chemotherapy drugs act mostly on rapidly dividing cancer cells, the drug also act on normal cell that divide rapidly, such tissues are bone marrow, digestive tract and hair follicles, this constitute the side effect of chemotherapy.

Examples are myelo-suppression, Mucositis, and alopecia among others. These side effects present as different clinical symptoms which could be physically and emotionally disturbing to the patients.

Ideally before commencement of chemotherapy, patients are properly prepared, the preparation involves appropriate investigations, hydration and counseling to enable the patients to cope and thus comply with the regimen of chemotherapy prescribed. This study was initiated to assess the knowledge of our patients before commencement of chemotherapy and their experience in terms of side effects during and after chemotherapy treatment.

**MATERIALS AND METHOD**

Between the first weeks of February and December 2011, consecutive histologically confirmed cancer patients attending Radiotherapy Department of the University College Hospital (UCH), Ibadan, scheduled to have chemotherapy were recruited to participate in the study. Chemotherapy clinic runs on Fridays of every week while counseling clinic runs on every Tuesday. The patients were interviewed by trained Research assistants using a set of questionnaires. The questionnaires were made up of 3 sections. Section A addressed social demographic variables, section B addressed participants’ general knowledge on chemotherapy and section C addressed issues about their

experience of the different side effects and how they coped. The data was analyzed using SPSS soft ware version 16.0

**RESULT**

One hundred patients participated in the study; the male female ratio was 1:3. . Majority of the patient studied (43%) were within the 50-59yrs age group and female were the majority (77%). Sixty percent of the patients had education up to secondary school level while 38(38%) had tertiary level of education, only 2 of the patients were illiterate.

**Figure 1**

Table 1

Age		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<30 yrs	2	2.0	2.0	2.0
	30yrs- 39yrs	10	10.0	10.0	12.0
	40yrs-49yrs	21	21.0	21.0	33.0
	50yrs-59yrs	43	43.0	43.0	76.0
	60yrs-69yrs	21	21.0	21.0	97.0
	70yrs-79yrs	3	3.0	3.0	100.0
	Total	100	100.0	100.0	

**Figure 2**

Table 2

Side effect		
symptoms	Frequency	Percent
nausea	8	8.0
vomiting	19	19.0
Diarrhea	20	20.0
Fever	13	13.0
Constipation	7	7.0
Hair loss	10	10.0
mouth ulcer	2.0	2.0
Weakness	14	14.0
Loss of appetite	7	7.0
Total	100	100.0

**Figure 3**

Table 3

Do you feel you have achieved a better health condition since you commenced chemotherapy				
	Frequency	Percent	Valid Percent	Cumulative %
Yes	98	98.0	98.0	98.0
No	2	2.0	2.0	100.0
Total	100	100.0	100.0	

**Figure 4**

Table 4

Performance status				
KPS	Frequency	Percent	Valid percent	Cumulative percent
10-30%	14	14.0	14.0	14.0
40-60%	23	23.0	23.0	37.0
70-90%	58	58.0	58.0	95.0
100%	5	5.0	5.0	100.0
Total	100	100.0	100.0	

**Figure 5**

Table 5

Were you satisfied with your care during the course of chemotherapy					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	95	95.0	95.0	95.0
	No	5	5.0	5.0	100.0
Total		100	100.0	100.0	

**Figure 6**

Table 6

Did you receive any prior information about chemotherapy and its side effect					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	98	98.0	98.0	98.0
	No	2	2.0	2.0	100.0
Total		100	100.0	100.0	

**Figure 7**

Table 7

if, yes, from whom					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Doctors	69	69.0	69.0	69.0
	Nurses	20	20.0	20.0	89.0
	Co_patients	7	7.0	7.0	96.0
	Others	2	2.0	2.0	98.0
	No info from any souce	2	2.0	2.0	100.0
	Total		100	100.0	100.0

**DISCUSSION**

The primary site of cancer in the patients varied from breast cancer 50 (50%) to prostate 3 (3%) and cervix 22 (22%), Nasopharynx 7 (7%) while others were 15 (15%) of all cancers seen. All of these patients were on chemotherapy. 36 of them had anthracycline based combination while 64 had non-anthracycline based chemotherapy. 88% of these patients were compliant with the regimen of chemotherapy prescribed and have been consistent with appointment while 12% did not comply. The group that complied completed 6 courses of chemotherapy prescribed, when asked about their level of knowledge about chemotherapy majority 98% claimed to have some information about chemotherapy and possible side effects. 98% of these patients claimed to have

obtained their information from health professional, doctors (69%), nurses (20%) while others sources were co-patients, Internet and others (11%). The common side effects experienced by these patients were vomiting (19%), diarrhea (20%), fever (13%) , weakness in 14 (14%)and constipation (7%) others were loss of appetite hairloss and mouth ulcer.. The patients claimed they had prior information of likelihood of these side effects but were not expecting the degree of severity experienced by some of them. Majority (85%) of them reported back to the hospital for management of the side effects while 15% managed to cope at home, 64% of the patients had their side effects effectively managed and the symptoms did not take longer than expected.

When asked if their health condition had improved following chemotherapy, 98% admitted to an appreciable improvement in their health condition. Virtually all these patients except for five patients were satisfied with their care during the course of chemotherapy. this group of patient usually are not very exposed, with limited access to Internet facilities hence their level of expectation is usually very low, it's therefore relatively easy to meet such expectations. This might not be so for well enlightened, highly educated patients.

Apart from the low level of exposure the high level of satisfaction observed in these patients may not be unconnected with the influence of our regular psycho-oncology clinic that holds on Tuesday every week where these patients have information about treatment, chemotherapy inclusive and this serves as avenue where most of their questions are answered. In addition to this, this group of patient admitted to seeking health information from the health professionals. There is a general low level of knowledge about the types of chemotherapy being received by patients even among the educated ones they rarely know the names or drugs being administered to them.

Tierney A.T. et al<sup>5</sup> studied 60 women receiving chemotherapy in rural setting among the Caucasians, and found that majority had limited knowledge about side effects of the treatment this is in contrast to what was found in the study probably because our study was done in an urban setting among patients with some formal education. In another study by the same author in 1991<sup>6</sup> , they found that patient experienced more side effects than what they have been warned to expect about 35 of the 60 women studied felt they were adequately prepared while the rest felt they were not warned of what to expect . There is no doubt that adequate preparation always help patients to cope well with chemotherapy<sup>7</sup>, however there is a dilemma of how to

prepare patients for chemotherapy without inducing unnecessary fear and anxiety there is a need for accurate balance of information, patients should be told of diverse reactions that could occur but stressing that these could be individualistic in outcome.

Sending all our patients to psycho-oncology clinic prior to any form of treatment has reduced anxiety to the barest minimum and has improved satisfaction.

Jacobsen P.P et al<sup>8</sup> studied influence of anxiety among Breast cancer patients receiving chemotherapy and concluded that anxiety proneness, response expectancy and classical conditioning may play a role in the development of anxiety between repeated chemotherapy infusions, solution to this is adequate counseling prior to commencement of the chemotherapy.

In conclusion, majority of these patients have reasonable level of knowledge about possible side effects of chemotherapy, they coped with side effects of chemotherapy, and were satisfied with care provided this outcome we believe must have the impact of the psycho-

oncology clinic.

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