

# **Management Strategies of Breast Cancer Among Cancer Patients Attending Cancer Clinic at Federal Teaching Hospital, Ido-Ekiti, Ekiti State**

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## **Abstract:**

Breast cancer is the most common form of cancer among women in low-income region and one of the most important causes of cancer-related death among women globally. The study examined management strategies of breast cancer among cancer patients attending cancer clinic at Federal Teaching Hospital, Ido-Ekiti, Ekiti State. Specifically, the study examined the treatment modalities of breast cancer patient and outcome of breast cancer treatment among patients attending cancer clinic, Federal Teaching Hospital Ido-Ekiti, Ekiti State. The study adopted a retrospective design. The target population for this study were patients with diagnosis of breast cancer and were receiving treatment at cancer clinic, the total number of 443 patients were registered and managed for cancer related conditions at cancer registry of Federal Teaching Hospital Ido-Ekiti, Ekiti State, only 229 patients were diagnosed of breast cancer. This study was a 10-year retrospective study and the data was extracted from the patient's case note. Type of treatment such as radiotherapy, chemotherapy and surgery while outcome of treatment such as discharge and referred or dead were extracted. Descriptive statistics of frequency, percentage, mean and standard deviation where applicable and inferential statistics of chi-square was used for testing hypothesis at 0.05 level of significance. The

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findings of the study revealed that most of the patients were treated with surgery, chemotherapy and radiation combined while the outcome of breast cancer treatment among most of the patients attending cancer clinic was successful. In addition, the management of breast cancer was related with and influenced the outcome of breast cancer. It was recommended among others that Government should collaborate with donor agencies by given more funds into research to develop a new technique in the diagnosis, treatment and management of breast cancer.

**Keywords:** Management strategies, Breast Cancer, Cancer Patients,



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## Introduction

Breast cancer is a worldwide public health challenge causing lot of morbidity and significant death worldwide (Lee et al., 2019; Mavaddat et al., 2015). It is the most common cancer among women in disadvantaged regions, leading to 23% of female cancer (Bray et al., 2018). In 2020, there were 2.3million women diagnosed with breast cancer and 685,000 deaths worldwide. As at the end of 2020, there were 7.8million women living with breast cancer diagnosis in the past 5years, making it the world's most prevalent cancer. In Nigeria, some 100 000 new cases of cancer occur yearly, with high case death ratio (Bray et al., 2018). With about 20% of the population of Africa and slightly more than half the population of West Africa, Nigeria contributed 15% to the estimated 681,000 new cases of cancer that happened in Africa in 2008 (Sylla & Wild, 2012; Oluwole & Kreamer, 2013). Similar to the situation in the rest of the low-income resource region of the world, a significant number of the increase in incidence of cancer in Nigeria is because of increasing life expectancy, reduced risk of fatality from infectious diseases, obesity, increasing prevalence of smoking, physical inactivity as well as changing dietary and lifestyle patterns (Sylla & Wild, 2012).

Management of breast cancer is a serious issue that comprises various modalities of treatment regimen (Zubizarreta et al., 2015). According to Zubizarreta et al. (2015), because of few facilities for radiation, mastectomy is the surgical treatment of choice for operable cases in many African countries. In Nigeria in 2011, 35.2% of the newly diagnosed Breast Cancer patients did mastectomy, and half of which had received primary systemic chemotherapy. Most of the patients were treated with palliative aim outside surgery due to advanced disease (Zubizarreta et al., 2015). Lack of radiotherapy facility still stands as a serious challenge, with an estimated current coverage of 28% and the need for about more 703 machines in Africa (Zubizarreta et al., 2015). Primary systemic chemotherapy is an essential treatment component if the high proportions of the advanced disease is been viewed. According to Agbo et al., (2014), in their retrospective study conducted in Sokoto, Nigeria, surgery was the rampant palliative treatment given to breast cancer patients and this was often followed by adjuvant chemo-radiotherapy, but due to financial difficulties, compliance was poor. The mortality indices and the high number of patients lost to follow up are true echoes of the abysmal outcome of cancer management in the environment. Most of the patients lost to follow up are presumed dead or too discouraged to continue hospital treatment due to escalating expenses. Most of the patients have no form of health insurance cover and therefore endures the financial cost of treatment directly. Almost all patients (99.9%) treated were lost after the second year of follow up (Agbo et al., 2014).

Breast cancer is a major burden to public health worldwide, but more common in developing countries where the most of the cases are diagnosed in late stages. By providing resource-applicable guidelines to advance control of breast cancer; Centre for Global Health continues to support the reduction of breast cancer cases and improved outcomes for breast cancer patients around the globe (Punglia, et al, 2018). Therefore, to decrease the burden of this disease, there is need for prevention, screening and treatment (Zelle et al., 2012). Studies suggest that early discovery and intervention are cost effective ways to prevent the daily adjusted life year lost (Zelle et al., 2012). Evidence revealed that mammography screening and treatment at all stages is a cost-effective intervention for breast cancer that would likely



deter more daily adjusted life years lost (Obrist et al., 2014). The patient's socio demographic, behavioral, cultural factors, healthcare service availability, and navigation-related factors are essential considerations for breast cancer control programs (Ngoma et al., 2015).

The burden of management of breast cancer in a low-resource country like Nigeria weighs heavily on the patient who is likely to be poor, illiterate with no form of health insurance thereby making them to seek less costly alternative treatment and only visit the hospital as a last resort and with advanced disease, complications and poor prognosis (Bray et al., 2018). More so, with the predicted increase in incidence of breast cancer in some parts of Africa, due to westernized lifestyle, the burden of breast cancer management will continually pose a great problem unless measures are on ground for early recognition and easy accessibility to treatment. In view of the above, the study examined management strategies of breast cancer among cancer patients attending cancer clinic at Federal Teaching Hospital, Ido-Ekiti, Ekiti State. Specifically, the study;

1. examined the treatment modalities of breast cancer patient in Federal Teaching Hospital Ido-Ekiti, Ekiti State; and
2. determined the outcome of breast cancer treatment among patients attending cancer clinic, Federal Teaching Hospital Ido-Ekiti, Ekiti State.

### Research Questions

The following research questions were raised for this study;

1. What are the treatment modalities of breast cancer in Federal Teaching Hospital Ido-Ekiti, Ekiti State?
2. What is the outcome of breast cancer treatment among patients attending cancer clinic, Federal Teaching Hospital Ido-Ekiti, Ekiti State?

### Research Hypothesis

This research hypothesis was formulated for this study;

1. There is no significant relationship between management of breast cancer and outcome of breast cancer management among patients with breast cancer in Federal Teaching Hospital Ido-Ekiti, Ekiti State

### Methodology

The study adopted a retrospective design. In a retrospective study, in contrast to prospective study, the outcome of interest has already occurred at the time the study is initiated. A retrospective study allows the investigator to formulate hypothesis about possible associations between an outcome and an exposure and to further investigate the potential relationships. The target population for this study were patients with diagnosis of breast cancer and were receiving treatment at cancer clinic, the total number of 443 patients were registered and managed for cancer related conditions at cancer registry of Federal Teaching Hospital Ido-Ekiti, Ekiti State, only 229 patients were diagnosed of breast cancer. The research instrument used for this study was a researcher-developed checklist based on the data in the patient record and previous studies.

This study was a 10-year retrospective study and the data was extracted from the patient's case note. Type of treatment such as radiotherapy, chemotherapy and surgery while outcome of treatment such as discharge and referred or dead were extracted. Data was collected using cancer clinic register. And where the diagnosis and treatment modalities



could not be ascertained, the case file was retrieved from medical records department to ascertain the diagnosis, types of cancer and treatment regimen. Identification of case was based on documented diagnosis of breast cancer by the managing physician. In this study, data were coded and analyzed using SPSS version 21 and presented in tables. Descriptive statistics of frequency, percentage, mean and standard deviation where applicable and inferential statistics of chi-square was used for testing hypothesis at 0.05 level of significance.

## Results

**Research Question 1:** What are the treatment modalities of breast cancer in Federal Teaching Hospital Ido-Ekiti, Ekiti State?

**Table 1: Treatment modality of breast cancer management**

	Treatment Modality	Freq.	%
1.	Surgery	10	4.4
2.	Surgery and Chemotherapy	94	41.0
3.	Surgery, chemotherapy and radiation	125	54.6
	<b>Total</b>	<b>229</b>	<b>100.0</b>

Table 1 shows the treatment modality and outcome of breast cancer management. Data collected shows that more than half (54.6%) of the patient were being treated with surgery, chemotherapy and radiation combined while 41.0% were treated with only surgery and chemotherapy and 4.4% were treated with surgery alone.

**Research Question 2:** What is the outcome of breast cancer treatment among patients attending cancer clinic, Federal Teaching Hospital Ido-Ekiti, Ekiti State?

**Table 2: Outcome of breast cancer management**

	Outcome Treatment	Freq.	%
1.	Successful	185	80.8
2.	Unsuccessful	44	19.2
	<b>Total</b>	<b>229</b>	<b>100.0</b>

Table 2 shows that vast majority (80.8%) of the patient benefited from the management of breast cancer as the treatment was successful while 19.2% were not successful.

## Test of Hypothesis

**Hypothesis 1:** There is no significant relationship between management of breast cancer and outcome of breast cancer management among patients with breast cancer in Federal Teaching Hospital Ido-Ekiti, Ekiti State.

**Table 3: Relationship between the management of breast cancer and outcome of the management**

Treatment	Outcome of management		Total	X <sup>2</sup>	df	p-value
	Alive	Dead				
Surgery	8	2	10			
Chemotherapy and surgery	83	11	94			
Chemotherapy, Surgery and Radiation	89	36	125			
<b>Total</b>	<b>180</b>	<b>49</b>	<b>229</b>	<b>9.338</b>	<b>2</b>	<b>0.009</b>

Table 3 shows that there is a significant relationship between management of breast cancer and the outcome of breast cancer with p-value less than 0.05 level of significance. The more comprehensive the management of breast cancer the higher the mortality rate as more death were recorded among patient being treated with combined management (chemotherapy, surgery and radiation).

### Discussion

The findings of the study revealed that more than half (54.6%) of the patient were being treated with surgery, chemotherapy and radiation combined while 41.0% were treated with only surgery and chemotherapy and 4.4% were treated with surgery alone. It was also revealed that vast majority (80.8%) of the patient benefited from the management of breast cancer as the treatment was successful while 19.2% were not successful. According to Oeffinger, et al (2020), the overall breast cancer death rate increased by 0.4% from 1975 to 1989, but since has decreased rapidly for a total decline of 40% through 2017 which has been attributed to both improvements in treatment and early detection.

The study further revealed a significant relationship between management of breast cancer and the outcome of breast cancer. The implication of this finding is that the more comprehensive the management of breast cancer, the higher the mortality rate as more death were recorded among patient being treated with combined management (chemotherapy, surgery and radiation). In line with this finding, Azubuike et al (2018) and Cherber, et al. (2014) found relationship between management of breast cancer and the outcome of breast cancer.

### Conclusion

The study concludes that most of the patients were treated with surgery, chemotherapy and radiation combined while the outcome of breast cancer treatment among most of the patients attending cancer clinic was successful. The management of breast cancer was related with and influenced the outcome of breast cancer.



## Recommendations

Based on the findings from this study, the following recommendations were made;

1. Government should collaborate with donor agencies by given more funds into research to develop a new technique in the diagnosis, treatment and management of breast cancer
2. Exclusive breastfeeding should be encouraged among the child bearing age during the antennal clinic.
3. Hormonal contraceptive such as estrogen dependent should be discouraged and another method should be emphasized for patient to adopt.

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