

*Full Length Research Paper*

# **Evaluation of patients with palliative care needs presenting at the Emergency Department, University College Hospital, Ibadan, Nigeria**

**Eunice B. Olusoji<sup>1\*</sup>, Adewale I. Badru<sup>2</sup> and Olaitan A. Soyannwo<sup>1</sup>**

<sup>1</sup>Centre for Palliative Care, Nigeria.

<sup>2</sup>Emergency Department, University College Hospital, Nigeria.

Received 7 May, 2021; Accepted 13 September, 2021

**Palliative care as a component of universal health care is still evolving in Nigeria and a high proportion of patients with life-limiting illnesses have no access to such essential service. Many of these patients with palliative care needs who present to the emergency department (ED) of hospitals may not receive palliative care. The aim of the study is to evaluate the demographic characteristics of patients with palliative care needs who presented at the ED of the University College Hospital, Ibadan and to check the proportion of these patients that were referred subsequently for palliative care services. This is a retrospective study done by extracting the data of patients with palliative care needs from the 2017 patient attendance records of the ED. This data was compared to the 2017 attendance record of the Department of Hospice and Palliative, University College Hospital. The number of patients identified with palliative care needs in the ED was 740 and the male/female ratio was 1.1. The mean age was 51.3±17.2 years and 41.1% were within the age group of 50-69 years. 70.1% of the patients with palliative care needs had non-cancer illnesses. 557 patients were admitted to the wards, 71 patients were discharged home, 18 got discharged against medical advice, and 94 patients died and no patient was referred directly for palliative care from ED. Presentation of patients with palliative care needs to the ED is inevitable. A palliative care referral system should be available for the best management of these patients.**

**Key words:** Palliative care, emergency department, referral.

## **INTRODUCTION**

Palliative care is of public health importance and is rapidly evolving in developing countries like Nigeria where a high proportion of patients with life limiting illnesses including cancer present late and are diagnosed in advanced stages when treatment is no longer effective (Oyebola and Oyebola, 2017). Many of these patients present at the Emergency Department (ED) of hospitals

with acute conditions related to their life-limiting illness and they may not receive optimal care due to various factors. These include the peculiarity of ED environment such as the competitive nature of service demand, attitudes and perception of emergency clinicians due to inadequate or absent palliative care training and uncertainty on how to manage palliative care patients

\*Corresponding author. E-mail: [euniceolusoji@gmail.com](mailto:euniceolusoji@gmail.com).

(Basol, 2015).

According to the International Association for Hospice and Palliative Care, palliative care is an active holistic of individuals across ages with serious health-related suffering and should be applicable throughout the course of an illness, according to the patient's needs, throughout all health care settings (place of residence and institutions) and in all levels (primary to tertiary), such care be provided by professionals with basic palliative care training and requires specialist palliative care by multi-professional team for referred complex cases (The International Association for Hospice and Palliative Care, 2018). Palliative care should ideally be accessible also in acute care settings like that of the ED.

Palliative care is still in the developmental stage in Africa and there is paucity of information regarding patients suffering from life-limiting illnesses and their presentation to the ED (Clark et al., 2007).

This study is the first to be done relating palliative care and emergency in Nigeria and it is to characterise patients with palliative care needs visiting an ED setting in a tertiary hospital.

## MATERIALS AND METHODS

### Study area

This study was carried out at the Emergency Department and the Department of Hospice and the Palliative Care, University College Hospital (UCH), Ibadan.

This Palliative Care Centre in the foremost tertiary care hospital in Nigeria was the first to start a structured palliative care services in Nigeria. It was inaugurated in 2007 as a result of the collaborative effort between the hospital and the Centre for Palliative Care Nigeria (CPCN), a non-profit organization (Olaitan et al., 2016).

The Hospice and Palliative Care Centre is a stand-alone day care facility situated within the hospital. It is opened for services between 8 am and 4 pm on weekdays with emergency cover by the palliative care team on call duty basis through telephone and the ED of the hospital. Patients are referred from within the hospital wards, out-patient clinics and other health facilities. Services provided by the trained palliative care team (including nurses, doctors and social workers) are outpatient care, co-management of in-patients, home-based care in the form of twice weekly home visits following discharge for those patients that live within the catchment area of the centre and bereavement support (Omoyeni et al., 2014; van Gorp et al., 2015).

### Study design

This is a one year descriptive retrospective study done using the attendance records of patients who presented at the Emergency Department of University College Hospital, Ibadan and the patient record of the Department of Hospice and Palliative care from January 1st to December 31st 2017.

### Study population

The targeted study population include patients aged 15 years and above who have been admitted in the Emergency wards of the hospital.

### Data collection

A well-structured proforma was used to extract relevant data such as age of patients, gender, diagnosis, the outcome of presentation which includes ward admission, discharge from hospital and referral to palliative care service and death of patients.

The patients with palliative care needs were selected by the diagnosis of any life-limiting illness. The diagnosis was categorized into Cancer and Non-cancer categories as shown by Frank et al. (2000). The sub categories of the diagnosis were documented on the proforma.

### Data analysis

The data collected into excel spread sheet, was screened for errors and analysed using Statistical Package for Social Science (SPSS) Version 21 software. Descriptive statistics of frequency counts, simple percentage, proportion, and mean  $\pm$  Standard Deviation were used to summarize and present the results.

### Ethical considerations

To carry out this project, ethical approval was sought and obtained from the University of Ibadan/University College Hospital Ethics Committee (UI/EC/19/0081).

## RESULTS

The 2017 emergency department attendance recorded a total of 8896 patients. The number of patients with diagnosis that required palliative care was 838. Data cleaning was done to remove the cases with incomplete information on the demographics. After cleaning, 740 cases were analysed.

There were 380 male and 360 female patients. The mean age of the patients was  $51.3 \pm 17.2$ . The minimum age was 15 years and the maximum age was 98-years. 41% of the patients were within the age group of 50-69 years. About 33% of the patients were of age 30-49 years and 41% aged 50-69 years. Six of them were aged 90 and above (Figure 1)

Patients (70.1%) fell under non-cancer category while 29.9% fall under cancer category (Figure 2). Cancer category was classified into eight groups, namely: breast cancer, gynaecological cancer (that is, cervical, uterine and ovarian), urogenital cancer (that is, prostate, bladder, testicular and renal), colorectal cancer, intra-abdominal cancer (that is, pancreas, gastric and gall bladder), haematological cancer, liver cancer and other cancer (that is, brain, thyroid, nasopharyngeal cancer, oropharyngeal cancer, lung and bone). Non cancer category includes sickle cell disease, cerebrovascular disease (stroke), heart failure, chronic kidney disease, retroviral disease (HIV/AIDS), chronic liver disease and chronic obstructive pulmonary disease (COPD). The diagnosis parameters are shown in Table 1.

Table 2 shows that about three-quarter (557, 75.3%) of the patients who presented at the ED were later admitted to the wards, 9.6% were discharged home from ED, 2.4%

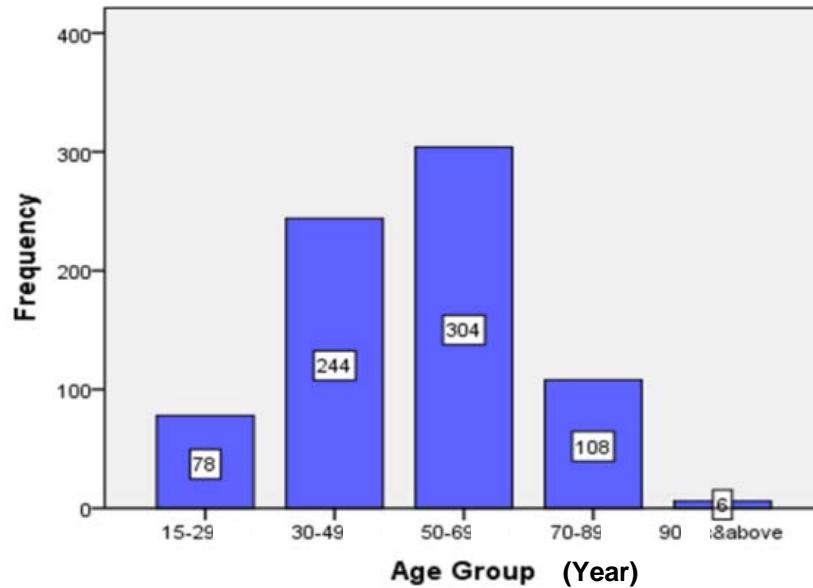


Figure 1. Age group distribution of the patients.

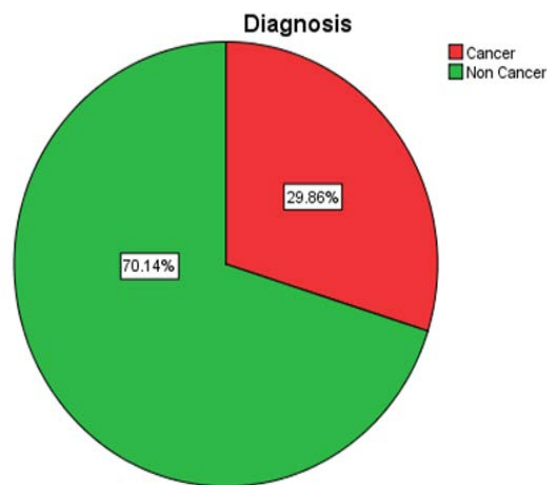


Figure 2. Bar-chart depicting cancer and non-cancer categories.

of them were discharged against medical advice (DAMA) and 12.7% were dead. No patient was directly referred to palliative care from ED.

However, 17 patients were eventually referred to palliative care. Of which, 16 cases were referred from the ward (14 cancer cases and 2 were non-cancer cases). These two non-cancer cases had the diagnosis of sickle cell anaemia. The last case was that of a self-referral to palliative care after the patient was discharged home from ED. The breakdown on how the referral was done is shown in Table 3.

Table 4 shows the odd ratios. The outcome of the

patients was categorized into two groups, namely: referred and not referred to palliative care. The outcome was used as the dependent variable while gender and diagnosis were used as explanatory variables.

The male odd of being referred is 75% when compared with female, that is, male are less likely to be referred to palliative care when compared with female.

For diagnosis, non-cancer category was set as reference. Patients with cancer cases were eighteen times more likely to be referred to palliative care when compared with non-cancer cases. The levels asterisk in Table 4 indicate statistically significant in the

**Table 1.** Diagnosis distribution table.

Category	Diagnosis	n (%)
Cancer	Breast Cancer	55 (7.4)
	Gynaecological Cancer	33 (4.5)
	Urogenital Cancer	37 (5.0)
	Colorectal Cancer	19 (2.6)
	Intra-abdominal Cancer	19 (2.6)
	Haematological Cancer	7 (0.9)
	Liver Cancer	22 (3.0)
	Other Cancers	29 (3.9)
Non Cancer	Sickle Cell Disease	75 (10.1)
	Cerebrovascular Disease	187 (25.3)
	Heart Failure	81 (10.9)
	Chronic Kidney Disease	107 (14.5)
	HIV/AIDS	29 (3.9)
	Chronic Liver Disease	33 (4.5)
	COPD	7 (0.9)
Total	740 (100)	

**Table 2.** Outcome distribution table.

Outcome	n (%)
Admitted to the Ward	557 (75.3)
Death	94 (12.7)
Discharged home	71 (9.6)
DAMA	18 (2.4)
Direct referral to Palliative care	0 (0)
Total	740 (100)

**Table 3.** Evaluation of the diagnosis and the number of eventual referral to Palliative care

Diagnosis	Number of admission to the ward	Number referred for palliative care from the ward	Number discharged home	Number of self-referral to palliative care after discharge from ED
Breast Cancer	40	4	8	1
Gynaecological Cancer	25	2	4	0
Urogenital Cancer	23	1	9	0
Colorectal Cancer	15	1	1	0
Intra-abdominal Cancer	15	2	2	0
Haematological Cancer	6	1	1	0
Liver Cancer	16	2	1	0
Other Cancer	19	1	7	0
Non Cancer	398	2	38	0
Total	557	16	71	1

corresponding levels (that is,  $p$ -value < 0.05 level of significant). There was statistically significant difference

in the outcome of male when compared with the female and in outcome of cancer cases when compared with

**Table 4.** Odd ratio presentation table.

Variable	Odd Ratio/CI
<b>Gender</b>	
Male	0.25 (0.07-0.90)**
Female	1.00 (Reference)
<b>Diagnosis</b>	
Cancer	18.37 (3.92-86.18)**
Non Cancers	1.00 (Reference)

non-cancer cases.

## DISCUSSION

Patients with palliative care needs were defined by their diagnosis of life-limiting illnesses and a table by Frank et al. (2000) was used as reference. This study has helped quantify the characteristics of palliative care patients utilizing the emergency department of a tertiary hospital.

The number of patients with palliative care needs that presented to the ED in this study shows that such presentation is inevitable. The World Palliative Care Alliance (2014) reported that more males had palliative care related issues than female which is similar to this study (Connor and Sepulveda Bermedo, 2014).

The trend in the past was that palliative care was offered mostly to terminal cancer patient but there is now a rise in recognition that other life-limiting illnesses require palliative care regardless of the expected outcome<sup>8</sup>. This study showed that more patients with non-cancer illnesses needing palliative care presented at the ED than cancer patients corroborating that palliative care services should not be restricted to cancer patients alone.

Ideally, patient with life-limiting illness get access to palliative care services as soon as their needs are identified, this study showed that none of the patients with palliative care needs who presented to the ED were referred directly to the palliative care unit even if there was an indication. This suggests that doctors and nurses in the ED have little or no knowledge about palliative care. The eventual referral of some patients from the wards also suggest that some health workers in the ward have insight about the need of palliative care in managing patients with cancer and other life-limiting illnesses. Therefore, all doctors, nurses and healthcare workers at all levels should be trained in the basic principles of palliative care to improve the quality of care given to patients by identifying their palliative care needs and referring them early if the need be (Paudel et al., 2014).

A high rate of ED visit in the last week of life is indicative of poor quality end-of-life care (McNamara et al., 2013), other indicators are multiple hospital

admissions, intensive care unit stays near the end of life, and patients dying in an acute hospital setting (Earle et al., 2003). The quality of life could not be ascertained from this study as the data on number of visits to the emergency department was not available.

The demographical pattern of presentation of cancer patients is similar to the epidemiological study of cancer in Nigeria with breast cancer as the leading cause of cancer related presentation at the hospital (Morounke et al., 2017).

There are suggested models and intervention as regarding meeting the palliative care needs of patients in the ED but there challenges in practicing them. This literature review explained that referral of patient for palliative care consultation can be done in the ED (Cooper et al., 2018), but patients with palliative care needs who present to ED in this study were not referred directly to the palliative care team even if there was indication.

A study done in New Zealand among palliative care patients highlights that ED can provide initial care for palliative care patients (Lawrenson et al., 2013). Therefore, consideration needs to be given to how palliative care services can be integrated into emergency department and given to the patients by the ED healthcare workers (Grudzen et al., 2011).

## Conclusion

The presentation of patients with palliative care needs to the ED cannot be totally avoided. Comprehensive and coordinated palliative care referral system should be available especially in tertiary health settings to minimize the number of patients with palliative care needs being referred for curative management only. ED physician should be trained to recognise the palliative care needs of patients and refer them promptly for palliative care services where these services are available.

The findings in this study will provide the information and create the awareness of the palliative care gap in Nigeria health system especially in the aspect of referral of patients with palliative care needs for palliative care services.

**CONFLICT OF INTERESTS**

The authors have not declared any conflict of interests.

**REFERENCES**

- Basol N (2015). The integration of palliative care into the emergency department. *Turkish Journal of Emerging Medicine* 15(2):100-107.
- Clark D, Wright M, Hunt J, Lynch T (2007). Hospice and Palliative Care Development in Africa: A Multi-Method Review of Services and Experiences. *Journal of Pain Symptom Management* 33(6):698-710. <https://doi.org/10.1016/j.jpainstmman.2006.09.033>
- Connor SR, Sepulveda BMC (2019). Global atlas of palliative care at the end of life [Internet]. World Palliative Care Alliance, 2014. [ cited 2019 Sept 9] Available: [http://www.who.int/nmh/Global\\_Atlas\\_of\\_Palliative\\_Care.pdf](http://www.who.int/nmh/Global_Atlas_of_Palliative_Care.pdf)
- Cooper E, Hutchinson A, Sheikh Z, Taylor P, Townsend W, Johnson MJ (2018). Palliative care in the emergency department: A systematic literature qualitative review and thematic synthesis. *Palliative Medicine* 32(9):1443-1454.
- Earle CC, Park ER, Lai B, Weeks JC, Ayanian JZ, Block S (2003). Identifying potential indicators of the quality of end-of-life cancer care from administrative data. *Journal of Clinical Oncology* 21(6):1133-1138.
- Frank PJ, Salisbury C, Bosanquet N (2000). The level of need for palliative care: a systematic review of the literature. *Palliative Medicine* 14(2):93-104
- Grudzen CR, Stone SC, Morrison RS (2011). The palliative care model for emergency department patients with advanced illness. *Journal of Palliative Medicine* 14(8):945-590.
- Lawrenson R, Waetford J, Gibbons V, Kirk P, Haggard S, Reddy R (2013). Palliative care patients' use of emergency departments. *The new Zealand Medical Journal* 126(1372):80-88.
- McNamara BA, Rosenwax IK, Murray K, Currow DC (2013). Early admission to community-based palliative care reduces use of emergency departments in the ninety days before death. *Journal of Palliative Medicine* 16(7):774-779.
- Morounke SG, Ayorinde JB, Benedict AO, Adedayo FF, Adewale FO, Oluwadamilare I, Sokunle SS, Benjamin A (2017). Epidemiology and Incidence of Common Cancers in Nigeria. *Population* 84(82,231,000):166-629.
- Olaitan S, Oladayo A, Ololade M (2016). Palliative Care: Supporting Adult Cancer Patients in Ibadan, Nigeria. *Journal of Palliative Care Medicine* 6(3):25.
- Omoyeni NE, Soyannwo OA, Aikomo OO, Iken OF (2014). Home Base Palliative Care for Adult Cancer in Ibadan- a three year review. *Cancer Medical Science* 8:490.
- Oyebola FO, Oyebola FO (2017). Palliative Care Trends and Challenges in Nigeria – The Journey So Far. *Journal of Emerging Internal Medicine* 1(2):17.
- Paudel BD, Dangal G, Munday D (2014). Overview of palliative care. *Nepal Journal of Obstetrics and Gynaecology* 9(2):3-10.
- The International Association for Hospice and Palliative Care (2018). Global Consensus based palliative care definition.2018-[cited 2018 Sept 8]. Available from: <https://hospicecare.com/what-we-do/projects/consensus-based-definition-of-palliative-care/definition/>
- van Gurp J, Soyannwo O, Odeunmi K, Dania S, van Selm M, van Leeuwen E (2015). Telemedicine's Potential to support Good Dying in Nigeria: A Qualitative Study. *Plos One* 10(6):e 0126820.