



PROFILING OF PALLIATIVE CARE PATIENTS ATTENDING THE EMERGENCY DEPARTMENT OF A TERTIARY CARE CENTRE

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ABSTRACT

Background - Patients with chronic and terminal illnesses frequently present to the emergency room with acute exacerbations of their symptoms. Palliative care is an essential part of their holistic management with the goal of enhancing their quality of life. These patients' future quality of life and access into the continuum of palliative care are directly impacted by the decisions made during these visits. Palliative treatment can also commence in the emergency room. Hence it is essential to have a thorough understanding of their presenting characteristics and the outcomes, to design practices that would help manage this vulnerable population more effectively. **Materials & Methods** - An observational study was conducted in the emergency department of Bangalore Baptist Hospital from February 2021 – May 2022. Patients presenting to ER who satisfied the inclusion criteria were identified. After taking an informed consent for the study, a detailed history and examination including presenting complaints, age, sex, triage score at presentation, comorbidities, treatment history, diagnosis, etc. was done using the study proforma. The outcome from the ED visit was noted and details were collected accordingly for patients who got admitted. Data was entered in Excel and SPSS version 26 was used for statistical analysis. **Results** – In our study, 51.57% were females and 48.5% were males. 30.7% of the participants in our study were above 80 years of age. 28.4% in 40 -59 years of age and 15% of patients in 20-39 years of age. 61.7% of patients were triaged as Category I. The most common presenting complaint was pain (39%) and breathing difficulty (29.5%). Almost half (52.3%) of our patients were cancer patients. The ER physician initiated palliative care in 60.2% of patients. There was statistically significance in the association between patient being bedridden and attenders suggesting for palliative care. Among the patients who got admitted from ER (70.8%), the mean length of stay was 5.18 days. Most cancer patients presented were diagnosed to have disease progression while non-cancer patients were diagnosed of an infection. **Conclusion** – Our study showed that palliative care is an essential part of emergency management. There is a significant number of patients who visit ED, who are ideal candidates for palliative treatment and hence ER is a potential gateway to counsel and initiate patients with chronic, terminal illnesses into this mode of treatment. There is a significant difference in the understanding of palliation between cancer and non-cancer group of terminal illnesses. This can be solved with further studies emphasizing on palliative patients as a whole rather than focusing on cancer patients.

KEYWORDS : Emergency Department, Palliative care, Terminal illness.

MATERIALS AND METHODS

Study Setting

The study was conducted in the Emergency Department of Bangalore Baptist Hospital, Hebbal, Bangalore. It is a tertiary health care centre with 22 beds in the emergency department. The average patient load is around 100-120 per day. It also has an established palliative care department with around 400 active patients registered under it.

Study population

Patients with terminal illnesses attending the emergency department will be recruited.

Inclusion criteria

- Patients who are already under the treatment of a palliative care team.
- All new patients opting for palliative management in the ED.

Exclusion Criteria

- Patients < 18 years of age

Study Design

- An observational study

Sample Size

According to the study done by Poojary et al, 25% of patients presented to the ED with pain as the presenting complaint. Taking an error rate of 5%, the calculated sample size is 289.

Sample Size for Frequency in a Population

Population size (for finite population correction factor or fpc) (N):1000000 Hypothesized % frequency of pain as a presenting complaint (p):25%+/-5Confidence limits as % of

100(absolute +/- %) (d):5%Design effect (for cluster surveys-DEFF):1

Sample Size(n) for Various Confidence Levels

ConfidenceLevel (%)	Sample Size
95%	289

Study Duration

- February 2021 to May 2022

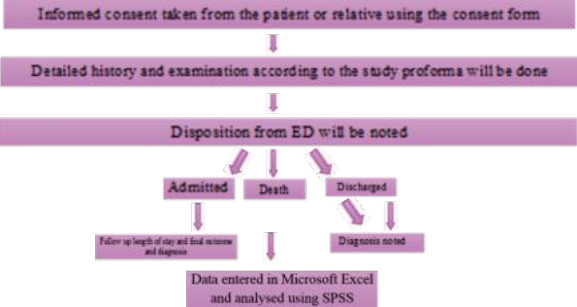
METHODOLOGY

The study was performed in the Emergency Department of Bangalore Baptist Hospital. All patients attending the ED will undergo a nurse-based triage who will triage the patient as per the acuity of the complaint. Among them, those who satisfy the inclusion criteria were identified by the senior consultant. Informed consent for the study was obtained from the patients or patients' relatives (in case the patient cannot give consent) for the study. A detailed history and examination were done which included presenting complaints, age, sex, triage score at presentation, diagnosis, last palliative care consult, etc. according to the study proforma. They were counselled regarding the need for palliative care management by the senior consultant on duty. The outcome from the ED visit - whether the patient got discharged, admitted or died in the ED was noted. If the patients were admitted, the length of stay of the patient, final diagnosis, and final outcome at the end of their hospital stay was collected. The data was analysed after entering in Microsoft Excel and statistical analysis was done using SPSS software.

Patients with terminal illness attending the ER of Bangalore Baptist Hospital

Inclusion criteria Patients who are already under palliative care. All new patients opting for palliative management in the ED

Exclusion criteria Patients <18 years of age



Study Instrument
Semi-structured questionnaire

Method of statistical analysis

Data were entered into Microsoft Excel and analyses were carried out using the Statistical Package for Social Sciences (SPSS) for Windows software (version 26.0; SPSS Inc. Chicago). Continuous variables were expressed as mean and standard deviation (SD), and categorical variables as frequencies and percentages. Comparison between groups was analyzed using the Chi-Square test of independence for categorical variables. Bar charts and pie charts were used for the visual representation of the analyzed data. An alpha level of 5% has been taken, i.e., if any p value is less than 0.05 it was considered significant.

Ethics

- Informed consent was taken from the patient or relatives (in the case of patients who cannot give consent) before including them in the study, using an informed consent form.
- As the study was done among a vulnerable group of people, all aspects of psychological and emotional support were addressed during the course in the hospital by the palliative care team with the help of a chaplain.
- The palliative care department was informed regarding the counselling of the patients, and if needed, the hospital's counselling department was also informed about the same.
- Patients were informed of the risks and benefits of opting palliative care and their decision was respected whatever it may be.
- The patient did not have to pay any additional cost or investigations for the study.
- The data obtained from the patients were used only for the study purpose and the patient's confidentiality was maintained.

RESULTS

Our study was conducted over a period from February 2021 to May 2022. Palliative patients and terminally ill patients who required palliative care coming to the emergency department were identified and included in our study. Among them, 136 (51.5%) were females and 128 (48.5%) were males. In our study population, females had a higher predominance than males.

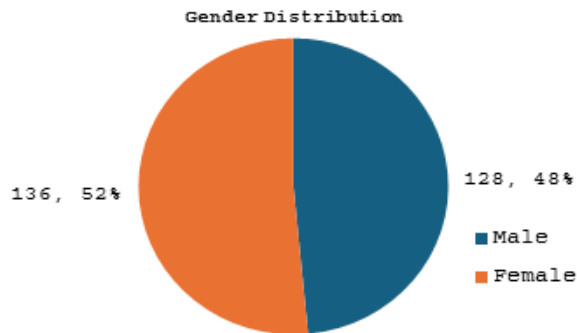


Figure 1: Gender distribution

The mean age group among our study population was 68.7 (SD – 15.7) years. Most of the patients were aged more than or equal to 80 years.

Table 1: Age group distribution

Age (in Years)	Frequency(n)	Percentage (%)
< 60	76	28.8
60 – 69	45	17
70 – 79	62	23.5
≥ 80	81	30.7
Mean ± SD	68.70 ± 15.7 years	
Range	29 – 95 years	

In our study, the majority of the patients (61.4%) were triaged as Triage Category I, and all the remaining patients (38.6%) as Triage Category II. There were no patients in other triages.

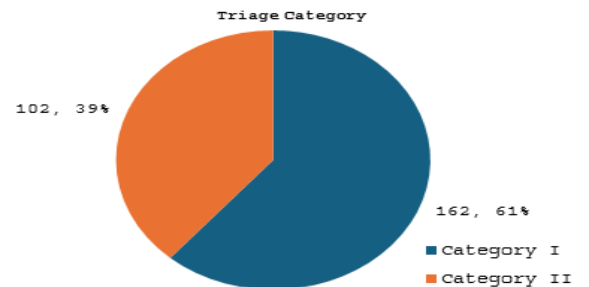


Figure 2: Triage Category

The majority of the patients who presented to ER had pain as their presenting complaint (103, 39%) followed by breathing difficulty (78, 29.5%). The OTHERS category included mostly constitutional and organ-specific complaints which formed the major chunk of the presentations.

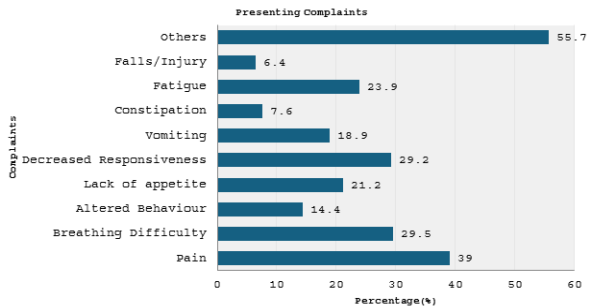


Figure 3: Presenting Complaints

In the cancer group, 75 patients had pain while only 28 had in the non-cancer group. Pain as a primary presenting symptom was more in the cancer patients when compared to other illnesses. But breathing difficulty was complained more by non-cancer patients (45 patients) than cancer patients (33 patients). Patients who had both pain and breathing difficulty were more in the cancer group when compared with the non-cancer group (71.7% vs 53.2%). This was statistically significant.

Table 2: Comparison of presenting complaints among cancer and non-cancer patients

Presenting Complaints	Cancer (n, %)		P value
	Yes (n=138)	No (n=126)	
Pain			
Yes	75 (54.3)	28 (22.2)	< .001*
No	63 (45.7)	98 (77.8)	
Breathing Difficulty			
Yes	33 (23.9)	45 (35.7)	.036*
No	105 (76.1)	81 (64.3)	
Pain and Breathing Difficulty			
Yes	99 (71.7)	67 (53.2)	.002*
No	39 (28.3)	59 (46.8)	

***Statistically Significant**
Chi-square test

Cancer patients were among the majority (52.35) of palliative patients who presented to ER. The other common chronic comorbid conditions included Diabetes Mellitus (51.9%), Hypertension (50.4%), Heart Disease (25.8%), Cerebrovascular Accidents (16.3%), Chronic Kidney Disease (9.8%), Chronic Liver Disease (7.6%), Parkinson's disease (8%) and Chronic Obstructive Pulmonary Disease. The OTHERS category housed a wide spectrum of pulmonary, neurological, and rheumatological illnesses in their functionally incapacitated stage.

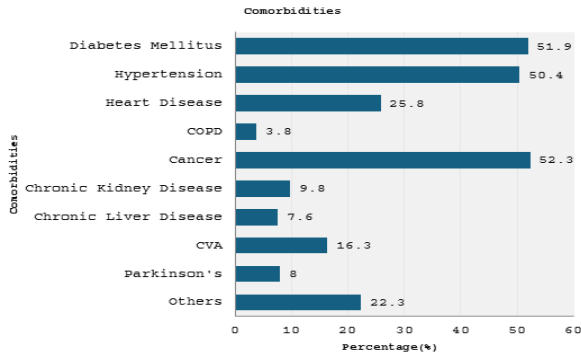


Figure 4: Comorbidities

The majority of the patients were already on some form of symptomatic treatment for their chronic illnesses apart from their regular medications. Among them, more than one-third of the population (37.5%) were on analgesics, followed by another one-third (30.7%) on laxatives. Around 13.3% were taking antipsychotics or anxiolytics prescribed by their physician and 6.4% were on home oxygen therapy for their disease.

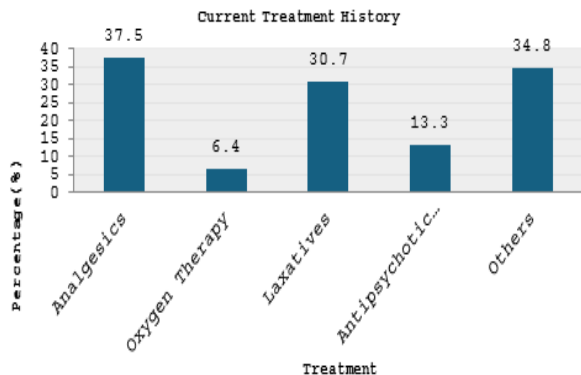


Figure 5: Current Treatment History

The functional assessment revealed almost half (126, 48%) of the patients were dependent on their daily activities and needs. A quarter (66, 25%) of them were independent while another quarter (72, 27%) were bedridden for varying durations.

Table 3: Functional assessment

Functional assessment	Frequency(n)	Percentage (%)
Bedridden	72	27.3
Dependent	126	47.7
Independent	66	25

The majority of our population needed some kind of assistance as witnessed by their mode of presentation to ER. 45.8% of patients were brought to ER on a stretcher and 45.5% in a wheelchair. A mere 4.2% of the population only presented walking without any support, while another 4.5% presented with the need for assistance.

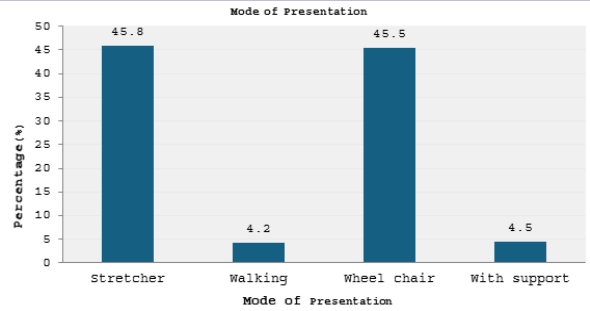


Figure 6: Mode of Presentation

In our study, 159 patients were counselled and initiated palliative care treatment by ER physicians which accounted for 60% of our study subjects.

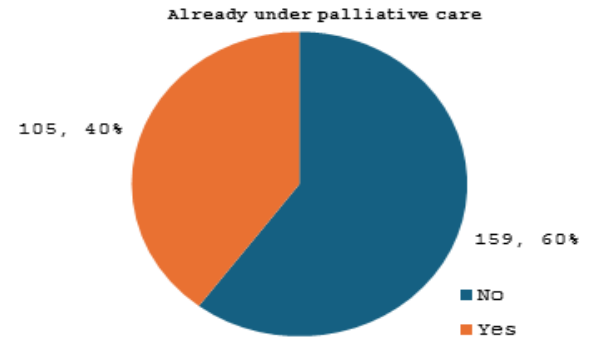


Figure 7: Status of palliative care

Home-based palliative care was availed by 47 subjects. Only 5 patients were referred from a different hospital to our ED for palliative care, whereas all others were patients under the care of our hospital's palliative care team.

Table 4: Characteristics of study subjects who were already on palliative care

Variables	Frequency(n)	Percentage (%)
Care Given		
Home-based	47	44.8
Hospital-based	58	55.2
Hospital		
BBH	100	95.2
Other Hospital	5	4.8

Sixty-two patients under our palliative care had a consult with their palliative doctor within 30 days of their ED visit.

Table 5: Number of days between last palliative care consult & ED visit

ED Visit	Frequency(n)	Percentage (%)
≤ 30 days	62	62
>30 days	38	38

Among the non-cancer group, three-fourths of patients (77%) didn't have prior palliative care involvement, wherein more than half of cancer patients (55.1%) were already under the treatment of a palliative care team. This association was found to be statistically significant.

Table 6: Comparison of status of palliative care between cancer and non-cancer patients

Variables	Cancer (n, %)		P value
	Yes (n=90)	No (n=97)	
On Palliative care or not (n=264)			< .001*
Yes	76 (55.1)	29 (23)	
No	62 (44.9)	97 (77)	

*Statistically Significant
α. Chi-square test

The number of patients who were initiated on palliative care newly from ER was 159. Among them 46 patients were bedridden. It was noticed that among the bedridden subjects, the patient's relatives put forward the option of palliative care (73.9%) as compared to patients who were not bedridden (40.7%). Patients who were not bedridden and who warranted palliative needs were mostly initiated for the same from the doctor's side.

Table 7: Association between patients being bedridden and palliative care option given by whom, among the new palliative care patients

Option is given by	Bedridden (n, %)		P value
	Yes (n=46)	No (n=113)	
Attenders	34 (73.9)	46 (40.7)	< .001*
Doctors	12 (26.1)	67 (59.3)	

*Statistically Significant

Chi-square test

Out of the 264 patients who presented to ER, 187 (70.8%) were admitted, 55 (20.8%) got discharged and 4.9% were discharged against medical advice. 9 patients (3.4%) died during their stay in ER.

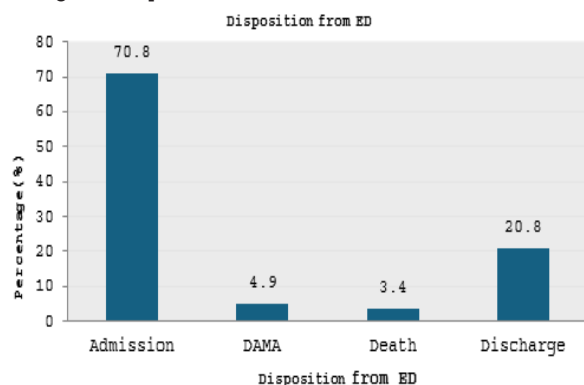


Figure 8: Disposition from ED

In ER, treatment was symptom-based. The most common treatment given in ER for the patients were hydration with iv fluids (56.1%), followed by analgesics (41.7%), oxygen therapy (39.8%), antiemetics (28.4%), enema (3%), and ascitic tapping (3%).

Table 8: Treatment given in ED

Treatment given	Frequency(n)	Percentage (%)
Hydration	148	56.1
Analgesics	110	41.7
Oxygen therapy	105	39.8
Antiemetics	75	28.4
Enema	8	3
Ascitic Tapping	8	3
Others	143	54.2

Patients presented to ER because of different reasons. As the majority of our study subjects had chronic illnesses in their terminal stages, 124 patients (47%) presented with complaints that signalled progression of the disease, 24 (9.1%) of them had some complication of the disease, and 7 (2.7%) arrived in ER because of side effect of the treatment they were on. One hundred and ten patients were diagnosed to be having an infective cause for presentation, and dyselectrolytemia was present in 16 of our study subjects. Three patients presented with trauma due to falls whereas only 9 patients presented with an unrelated new event. In comparison between cancer and non-cancer patients, the former presented with more disease progression (65.9% v/s 26.2%) and the latter with acute infection (61.9% v/s 23.2%) which was statistically significant.

***Table 9: Comparison of diagnosis among cancer and non-cancer patients**

Diagnosis	Cancer (n, %)		P value
	Yes (n=138)	No (n=126)	
Disease Progression			
Yes	91 (65.9)	33 (26.2)	< .001*
No	47 (34.1)	93 (73.8)	
Disease Complication			
Yes	10 (7.2)	14 (11.1)	.275
No	128 (92.8)	112 (88.9)	
Dyselectrolytemia			
Yes	5 (3.6)	11 (8.7)	.082
No	133 (96.4)	115 (91.3)	
Infection			
Yes	32 (23.2)	78 (61.9)	< .001*
No	106 (76.8)	48 (38.1)	
Trauma			
Yes	1 (0.7)	2 (1.6)	.607
No	137 (99.3)	124 (98.4)	
Treatment Side Effect			
Yes	4 (2.9)	3 (2.4)	1.000
No	134 (97.1)	123 (97.6)	
New Event			
Yes	3 (2.2)	6 (4.8)	.317
No	135 (97.8)	120 (95.2)	

Statistically Significant

Chi-square test

One hundred and eighty-seven patients were admitted from ER and followed up, and their length of stay in the hospital, final diagnosis, and outcome was studied. Most of the patients stayed in the hospital for 3-7 days with a mean length of stay of 5.18 days and got discharged (65.2%) while 49 patients (26.2%) died in the hospital.

Table 10: Length of stay and final outcome among admitted patients

Length of Stay (Days)	Frequency(n)	Percentage (%)
< 3	42	22.5
3 – 7	104	55.6
>7	41	21.9
Mean ± SD	5.18 ± 3.5 days	
Range	1 – 24 days	
Final Outcomes		
DAMA	16	8.6
Death	49	26.2
Discharge	122	65.2

Fifty-eight patients died after their ED visit – 9 in ER, and 49 during their stay in hospital. Among these 49 patients, the majority survived only for ≤ 2 days in the hospital, and the most common cause of death was documented as sepsis (45%) followed by metastatic carcinoma (26%).

Table 11: Death characteristics

Variables	Frequency(n)	Percentage (%)
Deaths happened		
In ER	9	15.5
In hospital	49	84.5
Survival days of those who died after admission (n=49)		
≤ 2 Days	26	53.1
> 2 Days	23	46.9
Causes of death (n=58)		
Sepsis	26	45
Metastatic CA	15	26
Others	17	29

DISCUSSION

Non-communicable diseases are becoming a burden to society and are overcoming cancer in terms of hospital visits. This, combined with the rise in the elderly population and

advances in treatment has led to a huge burden of visits, manpower allocation, and longer length of stay in the ED.

The dilemma of treating the patient aggressively versus giving only necessary comfort care in the acute setting as in emergency rooms has to be addressed for proper resource allocation amid time constraints. India has been a leader in instituting home-based palliative care services, but the decision on the level of care to be administered to palliative patients in the emergency department is less known, more so in our country. By identifying and studying the characteristics of this group of patients visiting the ED, we intend to aid the integration of palliative care into ED.

Our study showed a female majority, which was comparable with trends seen in the study by Miranda et al.¹⁴ Psychosocial support, differential pain perception, psychological distress due to the impact of symptoms on the body, and limitations of daily activities may be some of the reasons why we found a female predominance in our study. Also, we presume that the dependents of female patients are less tolerant of seeing them suffer making ER visits more frequent. These reasons may be more prevalent in rural and semi-urban areas of our country, than the western countries.³⁷

Different studies have shown the mean age of presentation of such patients to ED in the sixth and seventh decades. 9,22 In our study, the majority of patients were aged 80 years and over. We presume that this result may be because the relatives would have identified the need for palliative care at this age group after exhausting all modes of management or the patient would have opted after going through the distress of terminal illness. The option of hospice care is provided late by the medical professionals in our country, and hence ED may be the final resort for such patients. The idea of an integrated 'shared care' would be an ideal choice to reduce the load of palliative patients in Indian EDs.²³

The majority of our patients were triaged as Category I. In other studies, most patients were triaged as Category III although the triage scale used varies among each study.^{23,38} We follow the Modified Australasian Triage Scale and a nurse-based triage. Due to the severity of the symptoms, nurses triaged them as Triage I, considering the need for acute care for them. In our country, ED doctors would also have to focus on the relative anxieties and uncertainties in the outcome and management of patients. This makes it difficult for us to focus on life-threatening emergencies or prolongation of life in such situations. Barbera et al inferred from the Ontario Cancer Care Registry that the quantity and quality of the care provided to cancer patients were not sufficient to address their needs or the needs of their caregivers. Hence such patients require either additional support to remain at home or direct transfer to a palliative care unit or residential hospice than visiting the ED.³⁹

In our study, 39 per cent cited pain as their complaint on arrival to ED, followed by breathing difficulty (29.5%). Pain was predominant in cancer patients when compared to non-cancer patients. Pain in our cancer patients may be due to progression of metastasis to distant sites and an impending sense of doom, hence the reason. The finding that pain and breathing difficulty together as a symptom complex is more in cancer patients adds to this fact. Several studies have found similar results wherein pain and breathing difficulty were the most common reasons for such patients to come to ER. 22,38 Pain was complained as the primary reason for coming to ED by 24% of palliative patients attending ER according to Lawson et al.²³ Hence proper management of these two symptoms by proper caregiver education, adequate and timely dosing of opioids, etc. can reduce the number of ER visits by these patients. Most of the other studies showed

similar constitutional symptoms.^{—27,4042}

Cancer patients were among the majority (52.35%) of palliative patients who presented to our ER. The other common chronic comorbid conditions included heart disease (25.8%), cerebrovascular accidents (16.3%), chronic kidney disease (9.8%), chronic liver disease (7.6%), Parkinson's disease (8%) and Chronic Obstructive Pulmonary Disease. Our results were consistent with Guney et al and Grudzen et al.^{11,19} Along with cancer, we found an equal number of diabetics (51.9%) and hypertensives (50.4%) in our study. Cancer by itself is a condition which is usually associated with palliation because of its pathophysiology and metastatic nature. In patients with non-cancer diagnoses, the presence of multiple comorbid conditions progressing to an incapacitated state lowers survival rates and quality of life, and increases the cost of medical care.⁴³ This adds to the burden of their primary disease and may be a reason for our non-cancer patients being candidates for palliative care.

The majority of the patients were already on symptomatic treatment for their chronic illnesses. Among them, more than one-third of the population (37.5%) were already on analgesics, followed by laxatives (30.7%), anxiolytics or antipsychotics (13.3 %). Six per cent were on home oxygen therapy for their disease. Analgesics, mostly opioids are prescribed alongside laxatives considering the side effects and hence explain the similar proportion of usage of both these drugs. Higher rates of polymedication and use of psychotropics were observed by Feral-Pierssens et al.^{—44} Progression of illness exacerbating the pain or presence of a precipitating factor usually brings such patients to the ER which requires readjustment of their opioid doses and schedule. We also need to stress to them and the caregivers about compliance to the drug therapy which helps prevent acute worsening of symptoms. Caregivers of patients who are on home oxygen therapy, even though they have been counselled on the disease progression and prognosis of the patient, are not comfortable with the thought of their relative gasping for air at home and hence they are brought to the ER. Counselling them by the palliative team as a whole would help solve such problems.

Nearly half (48 per cent) of the patients were dependent on their daily requirements and activities, and one-fourth (27.27%) was bedridden for varying lengths of time. In a study of 1168 elderly patients from 124 emergency departments in France, three-fourths were dependant on their activities of daily living which is consistent with our findings. Among them, a third received professional home care assistance, while more than half had assistance from informal caregivers like friends or family members.^{—44} It can imply that our society most usually associates the need for palliative care with the final stages of sickness when they are functionally incapacitated. Odom et al, have inferred in their study that nearly half of the US family caregivers had never heard of palliative care and mostly they equated it with hospice, and death and dying.⁴⁵ The situation seems to be similar in our country also considering the burden of looking after a dying patient and the stigma associated with it. Hence, we assume most of these patients are usually rushed to the hospital at the earliest sign of any distress.

About 45.8% of our patients were wheeled into the ER on a stretcher and a similar number on a wheelchair. Van der Meer et al also noticed similar results wherein most of these patients were brought to ER in an ambulance.³⁸ As most of our patients were dependent and bedridden, being frail in nature may be the reason. In our hospital, most of the attenders considered these patients as very sick, so mobilizing them on a stretcher made them believe it helped them gain access to immediate care. It can also be interpreted that the relatives of the patients

have a general belief that the patients will be attended to their physical and psychological needs more emergently if they are brought on a stretcher.²³ This is a similar situation seen in most of the other hospitals in our country.

In our study, one of our secondary objectives was to find out the number of patients who were counselled and initiated palliative care treatment by ER physicians. ED physicians initiated palliative care in 159 patients who accounted for 60% of our study subjects. Grudzen et al conferred that ED-initiated palliative care consults enhance their quality of life in advanced cancer patients.⁴⁶ In our ED, patients with terminal illnesses are identified and a palliative care approach is counselled to the patient's attenders. Our palliative team consists of specialized palliative care physicians, experienced and trained nurses, and a chaplain who counsels them. Our results may be due to this pragmatic approach.

Among the non-cancer group, three-fourths of patients (77%) didn't have prior palliative care involvement, whereas nearly 55.1% of cancer patients were already under the treatment of a palliative care team. Similar results were also found by Burge et al wherein they concluded that cancer patients already under a registered palliative care visited ER less frequently.⁴⁸ Physicians treating terminally ill patients other than cancer, were focused on managing the primary illness and identifying end-organ damage, but considered the phase of palliation delayed because of the unpredictable nature of the trajectory of these diseases. This is very common in the Indian scenario. Palliative care in the form of home-based care was undertaken by 47 (44.8%) subjects and the remaining were on hospital-based treatment. Only 5 patients who were being treated at a different hospital were transferred to our ED for the continuation of palliative care. Their doctors may have had the notion that their home-care services lacked the required competence and expertise to handle the situation. This observation is similar to one by Guney et al where home palliative care services were used by 27.30% of the patients.¹⁹ Such frequent communications between patients and their doctors with adequate counselling will make sure their questions, fears, uncertainties and doubts are clarified. This will reduce unnecessary ER visits. Brumley et al found that people who received home healthcare services preferred to have a peaceful death at home surrounded by near and dear ones than getting admitted to an ED.³⁶

Most of the patients under our palliative care had their last consult with a palliative physician within a month. In a study by Poojary et al also, 56.9% of palliative head and neck cancer patients had visited the outpatient department for various reasons within 30 days before presenting to ED.¹⁶ If end-of-life discussions would have happened during their consult with the palliative team, it may have reduced the number of ED visits.⁴⁷

Among bedridden patients, relatives themselves were more likely to suggest palliative care (73.9%) when compared to patients who were not bedridden. This may be because the relatives waited for an acute event to bring the patient to ER, which worsened the already poor quality of health of bedridden patients or they were tired of the treatment sustaining options tried till then. This number could have been reduced if the palliative care needs were identified early by the patient's treating physician or family doctor.

Among the study group, 70.8% were admitted, 20.8% got discharged and a few (4.9%) left ER despite their current presentation warranting admission. More admissions may be because patients during their end of life, tend to spend more time as an inpatient as observed by Burge et al also.⁴⁸ This is also consistent with the findings obtained by Lawson et al, wherein 53.7% of palliative patients were disposed of from ED

as inpatient admissions.²³ Some of the caregivers substantiated admission through ED by saying that their patients were sick and had needs that could be provided only in a hospital setting. Some of the patients' attenders preferred treatment at home, if the necessary resources and equipment were available. But this is a rarity in our country. Some of the patients were concerned about the burden being imposed on their caregiver and family and hence preferred admission to the hospital.⁴⁹

Most of our patients were dehydrated which reflects the care received at home and poor quality of life. Although dehydration was not considered an issue by either the patients or caregivers, we identified the same and treated it as part of a holistic approach to the patient. Hydration with intravenous fluids (56.1%), analgesics (41.7%), and oxygen therapy (39.8%) were the most frequently administered treatments to our patients in the emergency room. Taylor et al also noticed most presentations to ED by palliative patients involved receiving intravenous interventions and supplemental oxygen etc.⁴²

Disease progression, complications of their primary disease and infection were the common diagnoses which brought palliative patients to ER. Cancer patients presented with more disease progression and non-cancer patients with an acute infection. The rate of infective causes was slightly higher in prior studies when compared to ours. Eighty-six per cent of patients were diagnosed to have an infection as observed by Verhoef et al and 19.4 % as observed by Miranda et al.¹⁴ The lesser rates of infection among our patients can be attributed to proper awareness among cancer patients, and judicious use of antibiotics. Destruction of immune-mediated mechanisms and autonomic dysfunction can be some of the reasons why our patients with non-cancer chronic illnesses had a higher rate of infections.

The length of stay in the hospital was approximately one week for most of our admitted patients. In our hospital, this is usually because along with the treatment, counselling the attenders for acceptance of the patient's illness, chaplain services for psychological support, drawing up a further plan according to the patient's goals of care, warranted time. These findings are similar to the study by Pierssen et al where the median length of stay was around 8 days.^{—44}

Nine patients died on the same day of their ED visit, and another 49 during their stay in hospital. Among these 49 patients, 53.1% died within one or two days of admission. Life-sustaining treatment was provided to all these patients who were triaged to category I, as part of protocol-based management in ER. Although these visits to ER may seem futile, the temporal course of terminal hours of a person is unpredictable, even for the experienced clinicians more so for the emergency physicians. This may be the reason for patients utilizing ER services in their final hours of life, even though it is not a desirable place for the predictably dying patient. In a similar observational study, nearly 16% of patients who visited the ED died within two days and 6% passed away the same day itself.²³ We presume the mental trauma associated with witnessing the final hours of their near ones also as a reason for ER admission.

The ED-initiated palliative care concept is new in our country and is gaining acceptance as and when awareness increases. The ER physician, as soon as he identifies that a patient requires palliative care, should take the initiative and move on a different trajectory. The palliative team should be brought into focus and an appropriate disposition to be done.

CONCLUSION

Palliative care is an integral part of Emergency Medicine. Our

study profile showed a multitude of terminal illnesses, cancer being predominant. Pain was the most common reason for patients to come to ER. There was a significant proportion of patients initiated on palliative care from our ER. Patients who were already under the care of a palliative team had lesser ED visits. Counselling is paramount in handling such patients and ER physicians should be skilled in good communication. The majority of these patients were functionally incapacitated with poor quality of living. Most of these visits also warranted admission. We observed delays in initiating palliative care by the treating physicians among non-cancer patients. We conclude that ER is a turning point in patients with palliative care needs wherein proper identification, prognostication, understanding patient's goals of care and counselling will change the further course of their life.

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