

Clinical audit to evaluate the palliative care and pain relief practices in a tertiary care hospital

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Abstract

Background: Malignancy is one of the life limiting illnesses. Palliative care includes relief of physical as well as emotional, spiritual and social pain. Assessment and management of symptoms is likely to ensure follow up, and compliance with treatment. This is a retrospective audit, conducted on patient records dealing with patients attending the palliative care and pain relief clinic in a tertiary care hospital. **Methods:** The records of 206 patients, who attended the pain clinic were scrutinised. The clinical diagnosis, staging of malignancy, and the treatment received were tabulated. The ECOG scale and Edmonton Symptom Assessment Scale (ESAS) were used to record the symptoms at first visit, and the best score during subsequent visits. Number of follow up visits were noted. The treatment administered, and whether it was according to the WHO step ladder, was observed. **Results:** 51.5% of patients were in stage IV at the time of referral to pain clinic. Out of total 206 patients, 122 patients had given the response for follow up after first visit. Therefore, the paired analysis was done in 122 patients. There was a highly significant improvement in all the symptoms, except for dyspnoea, and nausea. Relief of pain was achieved with paracetamol, followed by tablet Morphine in 70% of patients. 85% of patients were treated according to the WHO guidelines. 65% of patients adhered to prescription. **Conclusion:** The audit revealed that compliance with WHO protocol resulted in good symptom control. 84 patients were lost to follow up. Addressing 'total pain' in the first visit could possibly lead to a better follow up rate.

Key Word: palliative care, pain relief practices.

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Received Date: 17/11/2018 Revised Date: 20/12/2018 Accepted Date: 13/01/2019

DOI: <https://doi.org/10.26611/1015921>

Access this article online

Quick Response Code:



Website:

www.medpulse.in

Accessed Date:
04 February 2019

INTRODUCTION

Palliative Care offers psychosocial and emotional support to the patient, as well as to the caregiver, and is indicated in all diseases that modify quality of life adversely which includes malignancy, heart failure, *multiple sclerosis*, stroke, paraplegia, etc. Palliative Care Clinic in our institute was started in 2010, under the Dept. of Anaesthesiology and dealt mainly with patients with malignancies who needed palliative care. Palliative care is

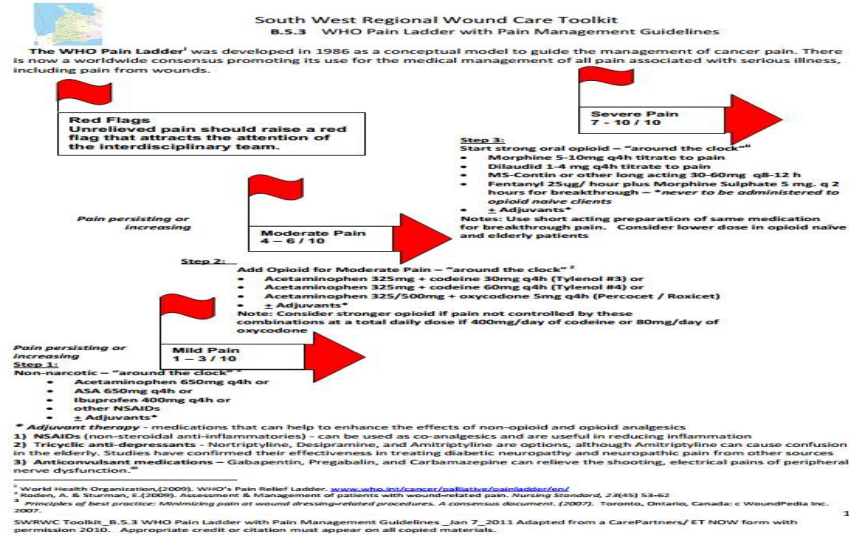
a team concept. The team includes the patient, as well as the family members. Doctors, nurses and other healthcare personnel form the rest of the team. After being diagnosed with malignancy, the patient loses his independence partially and suffers a wide variety of physical discomfort, pain and assault on his dignity. Good communication between the members of the team is important for delivering quality palliative care. This audit was meant to assess quality of palliative care received by the patients and also to assess whether pain management conforms to WHO guidelines. As a result this should help us in standardising the approach protocol as well as improving the strategies, and correcting the lapses.

MATERIALS AND METHODS

This is a retrospective audit of the patients referred to our clinic over a period of 6 years from 2010-2016. The study data was obtained from a retrospective review of the medical records after obtaining institutional ethical committee approval. In addition to the demographic data, the presenting symptoms, treatment offered and

improvement in the symptoms during follow up were tabulated. Only the first visit and one subsequent visit with maximum improvement of symptoms was taken into account for calculating the patients' symptomatic

improvement using the ECOG scale¹ and Edmonton symptom Assessment scale², and patient satisfaction was measured. Whether the treatment conformed to standard protocols and guidelines was analysed.



Patients in the clinic were always assessed by a Senior Consultant and their recordings only were taken into consideration. This audit was conducted and the results were tabulated and sent for statistical analysis.

RESULTS

The medical records of 206 patients were analysed .52.4% were female, and 47.6 % were male. The results obtained were tabulated in the following headings.

Table 1: Age group

Age group	Number of patients	Percentage
<=20	1	0.5%
21--30	4	1.9%
31--40	18	8.7%
40--50	50	24.3%
51--60	60	29.1%
61--70	63	30.6%
71--80	10	4.9%
Total	206	100%

In our audit, patients were mostly in the fifth to seventh decades with maximum in the seventh decade.

Table 2: Patients on follow up and their visits to the clinic

Number of visits	Frequency	Percentage
<5	61	30.0%
>5	64	31.1%
No follow up/deceased	81	39.3%

Table 3: Main care giver for the patients.

Main caregiver	Number	Percentage
Brother	3	1.5%
Daughter	36	17.5%
Daughter in law	4	2.0%
Friend	1	0.5%
Grandson	1	0.5%

Husband	33	16.0%
Mother	7	3.4%
Sister	3	1.5%
Sister in law	42	20.4%
Son in law	1	0.5%
Wife	75	36.4%
Total	128	62%

61% of the caregivers were females. The main care giver was either the daughter or the spouse.

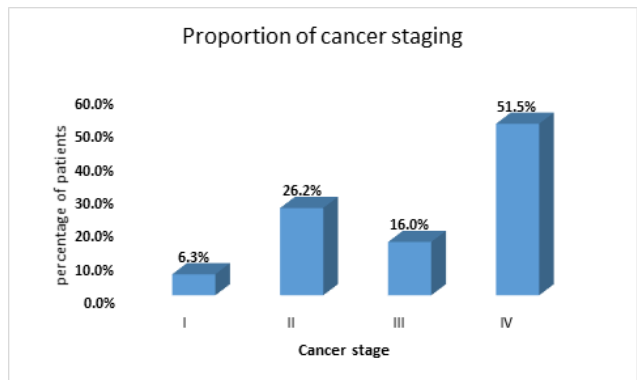


Figure 1:

Most of our patients were in the advanced stage of malignancy. (51.5%)

ECOG	Description
0	Fully active, able to carry on all pre-disease performance without restriction.
1	Restricted in physically strenuous activity but ambulatory and able to carry out work of a light or sedentary nature, e.g., light house work, office work.
2	Ambulatory and capable of all selfcare but unable to carry out any work activities. Up and about more than 50% of waking hours.
3	Capable of only limited selfcare, confined to bed or chair more than 50% of waking hours.
4	Completely disabled. Cannot carry on selfcare. Totally confined to bed or chair

The patients were treated as per the recommendation of the hospital tumour board

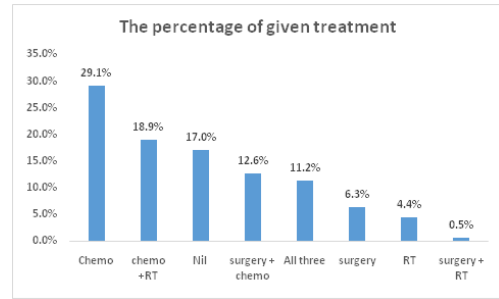


Figure 2

17% of patients were in the early stage of diagnosis. They had not been started on any disease specific treatment. 29% of patients had received only chemotherapy. The remaining patients had been operated upon followed by chemotherapy or radiotherapy. 11.2% of patients had received all three modes of treatment.

Edmonton Symptom Assessment System: (revised version) (ESAS-R)

Please circle the number that best describes how you feel NOW:

No Pain	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Pain
No Tiredness (Tiredness = lack of energy)	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Tiredness
No Drowsiness (Drowsiness = feeling sleepy)	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Drowsiness
No Nausea	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Nausea
No Lack of Appetite	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Lack of Appetite
No Shortness of Breath	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Shortness of Breath
No Depression (Depression = feeling sad)	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Depression
No Anxiety (Anxiety = feeling nervous)	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Anxiety
Best Wellbeing (Wellbeing = how you feel overall)	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Wellbeing
No Other Problem (for example constipation)	0	1	2	3	4	5	6	7	8	9	10	Worst Possible

Patient's Name _____ Date _____ Time _____

Completed by (check one):
 Patient
 Family caregiver
 Health care professional caregiver
 Caregiver-assisted

Table 4: Descriptive statistics of complaint parameters of the patients.

Complaints Parameters	Paired Samples - Descriptive Statistics				
	Patients' visits	N	Mean	Std. Dev.	Std. Error Mean
Pain	First visit	122	7.34	2.02	0.18
	First follow up	122	4.48	2.28	0.21
Dyspnoea	First visit	122	2.34	2.93	0.26
	First follow up	122	2.36	2.27	0.21
Fatigue	First visit	122	5.81	2.82	0.26
	First follow up	122	4.93	2.17	0.20
Nausea	First visit	122	3.38	3.12	0.28
	First follow up	122	2.84	2.14	0.19
Depression	First visit	122	6.76	2.26	0.20
	First follow up	122	4.89	2.15	0.19
Anxiety	First visit	122	6.79	2.30	0.21
	First follow up	122	4.86	2.21	0.20
Drowsiness	First visit	122	0.21	0.75	0.07
	First follow up	122	1.01	1.60	0.14
Loss of appetite	First visit	122	5.32	2.79	0.25
	First follow up	122	3.71	2.13	0.19
Loss of sleep	First visit	122	6.66	2.78	0.25
	First follow up	122	3.75	2.53	0.23
Loss of wellbeing	First visit	122	7.25	1.81	0.16
	First follow up	122	5.02	2.08	0.19

Out of total 206 patients, 122 patients had given the response for follow up after first visit. Therefore, the paired analysis is about 122 patients. In the above table, the mean column showed, an average score of the complaints of the patients for first visit and follow up. The standard deviation showed the variation in the scores (response) of the patients for each characteristics.

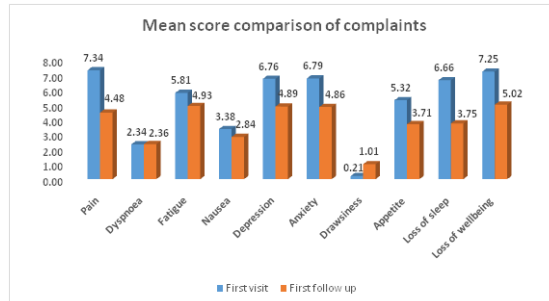


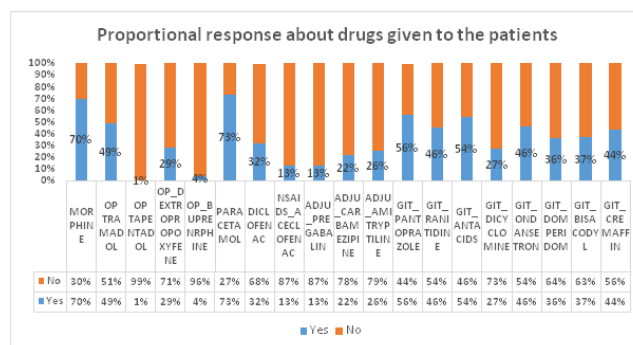
Figure 3: Mean score comparison of complaint parameters between first visit and follow up visit of the patients. Highly significant at P=0.0001

Table 5: Analysis of Mean score difference between first visit and follow up of the patients.

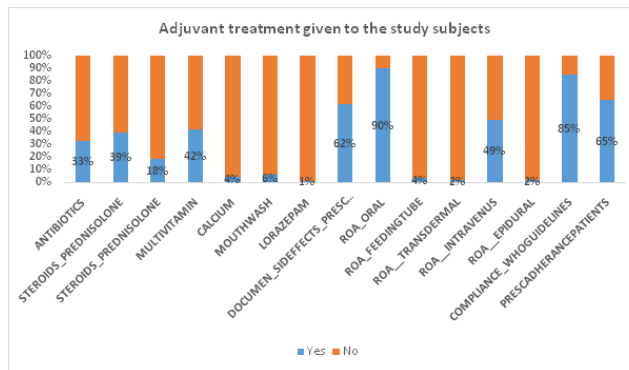
Complaints Parameters	Difference between first visit and follow up	Paired Differences			95% CI of the Difference		Student's Paired t test		
		Mean	Std. Dev.	Std. Error Mean	Lower	Upper	t test value	df	p value
Pain	First visit- followup	2.85	2.17	0.20	2.46	3.24	14.53	121	0.0001*
Dyspnoea	First visit- followup	-0.02	2.32	0.21	-0.43	0.40	-0.08	121	0.938
Fatigue	First visit- followup	0.89	2.44	0.22	0.45	1.32	4.01	121	0.0001*
Nausea	First visit- followup	0.53	3.00	0.27	-0.01	1.07	1.96	121	0.052
Depression	First visit- followup	1.87	2.26	0.20	1.46	2.27	9.15	121	0.0001*
Anxiety	First visit- followup	1.93	2.57	0.23	1.47	2.39	8.28	121	0.0001*
Drowsiness	First visit- followup	-0.80	1.46	0.13	-1.06	-0.54	-6.09	121	0.0001*
Loss of Appetite	First visit- followup	1.61	2.79	0.25	1.11	2.12	6.38	121	0.0001*
Loss of sleep	First visit- followup	2.91	2.75	0.25	2.42	3.40	11.68	121	0.0001*
Loss of wellbeing	First visit- followup	2.23	2.04	0.19	1.86	2.60	12.05	121	0.0001*

*Highly significant at P=0.0001

All of the above complaints parameters of the study patients showed highly significant difference between the mean score of first visit and follow up at p = 0.0001; except dyspnoea and nausea. As the disease progressed, cachexia led to poor nutrition, anaemia, and worsened dyspnoea. Dose of Morphine was increased in order to treat the increased pain which led to more nausea, due to oral Morphine³.



73% of patients had relief of pain with paracetamol, followed by Tablet Morphine in 70% of patients. The other analgesics used were tramadol, diclofenac or aceclofenac in some patients. More than 50 % of patients were given antacid therapy in the form of Pantoprazole or Ranitidine, combined with liquid antacid gel. 46% of patients who were given ondansetron responded well. Domperidone for emesis prophylaxis was beneficial in 36% of patients.



The WHO stepladder⁴ insists on ‘by the oral route, by the clock, as per the WHO stepladder, and titrated to patients’ needs. 85% of patients were treated according to the WHO guidelines. 65% of patients adhered to prescription.

Pain is not just physical...



DISCUSSION

Patients with a diagnosis of malignancy are referred to us mainly for pain relief. Most of them were in the fifth to seventh decades of life suffering from advanced stage of malignancy. (Figure1). This audit was meant to assess quality of palliative care received and also to assess if management conforms to WHO guidelines, We analysed the records of 206 patients. However follow up visits could be documented in only 122 patients. This was because we lost a significant number of patients to follow up and a sub analysis done showed that all of them were in the advanced stage and have died before the first follow up visit. Since the scope of the study was to assess the palliative care response, these numbers were grouped as lost to follow up/deceased. In the remaining patients who came for regular follow up, we could clearly see that females were the predominant care givers fitting with our culture. (Table4) ‘Collusion’⁵ by the family members increases the patient’s distress. Communication between the patient, the doctors, nurses, and caregivers about the stage of the disease and prognosis helped in decreasing the anxiety and depression scores. Time spent with the ‘patient AND family’ helped them to come to terms with the protracted course of diagnosis and treatment. Pain suffered by patients has spiritual, emotional and social aspects in addition to the physical. Once the concept of ‘TOTAL PAIN’⁶ was understood, it became easier to manage the patients. The anxiety, depression, fatigue scores and the loss of appetite, loss of sleep, and loss of

sense of wellbeing were high at the time of first visit. During subsequent visits the scores improved, and the difference was significant, with a p value of less than 0.00001. The analysis of treatment especially for pain relief was very good (table 5). The treatment protocol followed were as recommended by WHO⁷. 103 patients were in stage IV of disease. Their mean pain score was seven out of a maximum possible 10 at the time of presentation. 39 patients had a score of 8, and 30 patients had a score of 9. This amounted to 67% of the 103 patients, which is two-thirds of patients with advanced disease. The reduction in pain score after treatment, showed significant difference, with a p value of less than 0.00001. Dyspnoea score showed a minimal improvement after treatment, but the difference was not significant. Nausea showed a minimal decrease, and this was also not significant. In the Cochrane database of systematic reviews, 62 studies involving 4241 participants were analysed. 6 out of 10 participants reported adequate pain relief with morphine orally. 6% of participants dropped out of the trial due to intolerance of side effects, namely constipation, nausea, and vomiting.⁸ The adjuvant use of prophylactic drugs like Ondansetron, Domperidone and Pantoprazole reduced these side effects Follow up was possible only in 122 patients. (59%). This is a drawback in the study. Most of the patients lost to follow up were in a advanced stage of malignancy, and died within the next few days. Increased awareness among the primary consultants has led to referral of the patient at an early

stage of diagnosis, and treatment. If reasonably adequate pain relief is provided to the patient, they trust the palliative care physician, and come for follow up. Devoting time to tackle the patients' fears and emotional burdens could have gained the trust of patients, leading to a higher follow up rate.

CONCLUSION

Establishing and running a palliative care clinic in patients with malignancy requires a coordinated effort from all Physicians and support staff to optimise outcomes, This is because the care involves total pain relief which has an emotional, social, psychological and physical components, The crucial role played by the care giver is equally important in this chain , In our clinical audit we found that significant pain relief could be achieved in most of our patients without need to deviate from the well-established protocols as recommended by WHO.

REFERENCES

1. ECOG Performance Status. Cancer Res Gr [Internet]. 2018;1982. Available from: <https://ecog-acrin.org/resources/ecog-performance-status>
2. Salins N, Muckaden MA, Chowdhury J, Deodhar J. Respite Model of Palliative Care for Advanced Cancer in India : Development and Evaluation of Effectiveness. *J Palliat Care Med.* 2015;5(5):1–4.
3. Wiffen PJ, Wee B, Derry S, Bell RF, Moore RA. Opioids for cancer pain - an overview of Cochrane reviews. *Cochrane Database Syst Rev.* 2017;2017(7).
4. WHO. WHO | WHO's cancer pain ladder for adults [Internet]. World Health Organisation. 2016. Available from: <http://www.who.int/cancer/palliative/painladder/en/>
5. Victor. Benefit or Harm? A Study on Impact of Collusion on the Quality of Life among Palliative Care Patients [Internet]. Vol. 23, *Indian Journal of Palliative Care.* 2018. p. 468–79. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5661353/>;
6. David Clark. 'Total pain': the work of Cicely Saunders and the maturing of a concept | End of life studies.
7. Qureshi S, Sankhwar P, Singh U, Singh N, Goel S, Malik A. Evaluation of WHO guided pain management protocol in cases of cancer cervix. *Indian J Pain [Internet].* 2015;29(1):32. Available from: <http://www.indianjpain.org/text.asp?2015/29/1/32/145942>
8. Green E, Zwaal C, Beals C, Fitzgerald B, Harle I, Jones J, *et al.* Cancer-related pain management: A report of evidence-based recommendations to guide practice. *Clin J Pain.* 2010;26(6):449–62.

Source of Support: None Declared
Conflict of Interest: None Declared